SEA TURTLES - TOKELAU IS. FILE

G. H. BALAZS

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State Council for Nature Conservation and chairman of the Council's scientific committee. In this capacity he did a great deal to save many still unprotected small remnants of the Dutch semi-natural landscape which were threatened by land re-allotment plans. These plans made it possible for agricultural units to be enlarged, drained and made fully accessible and so at the same time destroying the original landscape. This unequal struggle of nature conservation against the powerful circles of 'culture technique' (as land improvement is called in Holland) has deeply influenced Westhoff's susceptible mind, that of a religious philosopher, of a poet, and of a passionate music lover; the continuous breakdown of natural beauties has from time to time made him bitter. However, his tremendous energy has kept him active in his work and hobbies.

While appreciating Westhoff's achievements in nature conservation we should not forget his accomplishments in geobotany. Most of his books and over 400 of his papers deal with this subject. On his 60th birthday a symposium on plant species and plant communities was held in his honour and in the proceedings, a real *liber amicorum*, Adriani & van der Maarel (1978) surveyed Westhoff's main lines of research and publications. Notwithstanding these achievements which found recognition in his nomination as a member of the Royal Netherlands Academy of Arts and Sciences, and an honorary member of the British Ecological Society, Victor Westhoff's main scientific contribution to his country, and indeed, Western Europe, was to establish a better understanding of man's impact on nature and its significance for the management of nature reserves.

EDDY VAN DER MAAREL

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"Traditional values"

SOME NATURE CONSERVATION PROBLEMS IN THE SOUTH PACIFIC

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ABSTRACT

The present account covers the South Pacific between the Marquesas and Pitcairn Islands in the east, Guam and the Marshall Islands in the north, Tropic of Capricorn in the south, and Papua New Guinea forms the western boundary.

Nature conservation is related to the three main types of islands, e.g. 'mini-continents', volcanic islands and low islands including atolls.

The conservation problems affecting the various ecosystems on the above types of islands are caused by the adventive plant and animal species, both accidentally and deliberately introduced; forest fires; pollution; tourism; mining; milling of indigenous forests; and problems resulting from population growth and movements of people in this area.

The existing or proposed conservation measures in this area include the protection of rare plant and animal species, retention or re-introduction of pre-European conservation measures, and environmental education.

INTRODUCTION

A few years ago problems of nature conservation in the South Pacific were discussed at a number of international meetings: (i) the Regional Symposium on Conservation of Nature, Reefs and Lagoons, organised by the South Pacific Commission in collaboration with the International Union for Conservation of Nature and Natural Resources at Noumea (South Pacific Commission & IUCN, 1973); (ii) the 12th and 13th Pacific Science Congress at Canberra (Costin & Groves, 1973) and Vancouver (Scagel, 1976) respectively, where the present situation in nature conservation and

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its South Pacific problems were discussed; (iii) the Second Regional Symposium on Conservation of Nature and Plenipotentiary Meeting in Apia, Western Samoa, in June 1976. The Plenipotentiary Meeting adopted a Convention of Nature in the South Pacific (Wodzicki, 1976); and (iv) the Second South Pacific Conference on National Parks and Reserves in Sydney, Australia in April 1979.

In the present paper some of the more important nature conservation problems are described, and conservation measures existing in various islands in pre-European times are mentioned briefly. Finally, recent progress in nature conservation achieved by various islands is critically examined and some tentative conclusions drawn.

MATERIAL AND METHODS

The area described by the present paper is bounded by the Norfolk and Rapa islands in the south, the Marquesas and Pitcairn Island in the east, Guam and the Marshall Islands in the north, and the western boundary of Papua New Guinea in the west (Fig. 1).

Table 1 lists all the South Pacific islands considered with information on their area and population. Island size varies widely from an area of 5 km^2 and a population of below 100 (Pitcairn I.) to nearly 500 000 km^2 in area and a population over 2 000 000 (Papua New Guinea), and are dispersed in 31 000 000 km^2 of the Pacific Ocean.

Following Bourlière (1973) the South Pacific islands in the area described can be divided in terms of origin and geology into three main groups:

(i) 'Mini-continents', such as New Caledonia and New Guinea, exhibiting a high degree of endemism, adaptive variation in some groups, etc.

(ii) Volcanic islands, with similar ecosystems but a large variety of habitats, and often with a long history of human occupation due to high soil fertility, e.g., southern Cook Islands, some of the Fiji Islands.

(iii) Low islands including atolls, which may be of ancient, comparatively modern, or even of very recent origin, with consequential differences in the ecosystems, which nonetheless tend to be very simple and have characteristically poor soils.

This classification can, as shown later, be related to nature conservation on islands of the various divisions.

Ideally, to obtain complete information and provide an adequate picture of nature conservation problems, it would have been necessary to visit and stay on at least one island in each archipelago. As this was not possible, various authorities were approached for information. Substantial data were received from some islands but only inadequate or incomplete information from others.

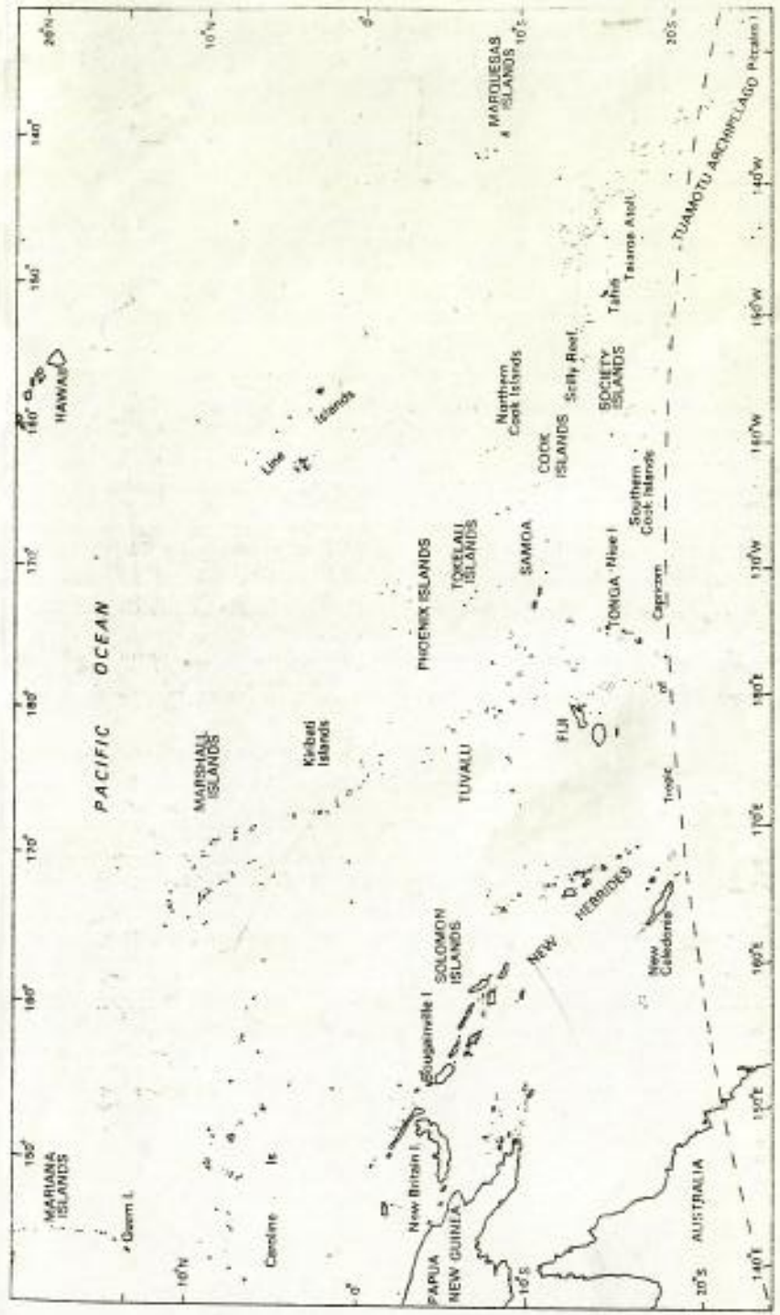

Fig. 1. Map of South Pacific, showing area discussed in the paper.

TABLE 1

POPULATIONS AND AREAS OF ISLANDS IN THE REGION OF THE SOUTH PACIFIC SHOWN IN FIG. 1. (SOUTH PACIFIC COMMISSION, 1979)

Territory	*Area (km²)*	*Year*	*Population*
Pitcairn Island	5	1975	70
French Polynesia	3265	1971	119168
Cook Islands	240	1971	21317
Tokelau Islands	10	1976	1575
Tonga	699	1966	77429
Niue Island	259	1971	3843
American Samoa	197	1974	29191
Western Samoa	2935	1971	146626
Wallis and Futuna Islands	255	1969	8546
Fiji	18272	1966	476727
Gilbert and Ellice Islands	744	1973	57813
British Solomon Islands	28530	1970	160998
New Hebrides	11880	1967	77988
Norfolk Island	36	1971	1683
New Caledonia	19103	1974	131665
Nauru	21	1966	6057
Trust Territory	1832	1973	115251
Guam	541	1970	84996
Papua New Guinea	462243	1971	2489935
Total	551067		4010878

CONSERVATION PROBLEMS AFFECTING VARIOUS ECOSYSTEMS IN THE ISLANDS OF THE SOUTH PACIFIC

Introduced plants and animals and their effect

Plants. In the past the islands' ecosystems had a dynamic stability which made unaided invasion of new organisms difficult. With man's arrival this stability gradually but invariably disappeared, and sometimes the resulting instability assumed catastrophic proportions. Man's late arrival in the Pacific made this area an ideal field for the study of plant invasions.

Adventive plants reached this part of the Pacific in three waves (Merrill, 1947; Mangenot, 1963). First arrivals were various cultivars brought from the Indo-Malayan region by Polynesians, Melanesians, and Micronesians. The second wave consisted mainly of weeds from the American Continent carried by Spaniards during their early voyages to the Philippines, Guam, and other places. Finally, European colonisation in the last two centuries dramatically increased the numbers of species and facilitated their spread.

The following examples illustrate this sequence of events:

(i) The number of weeds on a volcanic island increases rapidly after settlement and agricultural development by Europeans. According to Parham (1955), in 1869 on Fiji there were 19 grasses, of which 5 were indigenous. In 1953 there were 158 species of adventive grasses, and several had become major pests.

(ii) Niue Island, a raised atoll with an area of 259 km², is another example of successful invasion by adventives. Sykes (1970) recorded 206 adventives and 175 indigenous species and varieties of vascular plants. He estimated that between 1940 and 1965 80 more species had become adventive.

(iii) The Tokelau atolls, with a total area of 10 km² have 16 adventives among 35 indigenous plants (Parham, 1971). The progress of agricultural development in many islands (most atolls are exceptions) depends on the introduction of new techniques and plant cultivars which affect the existing ecosystems. For example, they can enable hitherto unimportant weeds to spread e.g., *Mikania* a lianoid composite, and certain grasses on Niue (Sykes 1970).

Animals. The Polynesians, Melanesians and Micronesians are thought to have brought poultry, pigs, and probably the Polynesian rat *Rattus exulans* into the Pacific area. The arrival of Europeans initiated a continuing stream of adventive animals, including goats, sheep and cattle. These can be divided into accidental and deliberate introductions.

Accidental introductions. The rhinoceros beetle *Oryctes rhinoceros* is economically the most important animal that has been introduced accidentally into the Pacific. It has invaded most islands and caused incalculable damage. Various types of control have been tried over many years without significant success.

The ship or roof rat *R. rattus*, the Norway rat *R. norvegicus*, and the house mouse *Mus musculus* have arrived at most of the islands, mainly from ship movements during both world wars. They have caused many health and economic problems (Anon., 1968), and still do considerable damage on practically every island to a variety of native and introduced crops, including coconuts, the staple crop of the southern Pacific (Wodzicki, 1972).

All rat species, including the Polynesian rat, have had a significant effect on sea bird populations in many islands (Kepler, 1967; Fleet, 1972; King, 1973). Thibault (1973) considers that four or five endemic land bird species in French Polynesia have disappeared as the result of introduced rats.

Deliberate introductions. The number of bird species deliberately introduced into the Pacific islands differs from one archipelago to another, as does their ecological impact. In the islands of Eastern Polynesia 11 such species have been deliberately introduced: marsh harrier *Circus approximans*; Indian wildfowl *Gallus gallus*; pheasant *Phasianus colchicus*; quail *Coturnix coturnix*; rock pigeon *Columba livia*; barred ground dove *Geopelia striata*; brown myna *Acridotheres tristis*; chestnut-

breasted finch *Lonchura castaneothorax*; waxbill *Estrilda astrild*; red-brown finch *Aegintha temporalis*; silvereye *Zosterops* sp.; scarlet tanager *Piranga olivacea* (Thibault & Thibault, 1973). The local disappearance of some native species is being attributed to the introduction of the Australasian harrier.

The brown myna appears to have dominated the environment in Fiji and the Cook Islands to the disadvantage of several endemic species; occasionally it has even taken over niches occupied by native species. The liberation of exotic birds had an additional effect on the avifauna of various islands, because the liberated birds sometimes carried pathogens to which the endemic species had no acquired resistance (Thibault, 1973).

Among carnivores the Indian mongoose *Herpestes auropunctatus* was deliberately introduced to Fiji where it had apparently no significant effect on the rodent populations but reduced some of the bird and lizard populations. The little shrew *Suncus murinus*, introduced into the Pacific by the Japanese, is a recent arrival in Micronesia (Barbehenn, 1974). It was reported to have an effect on house mouse and skink populations.

Recently there were attempts to introduce mustelids to the Tokelau Islands for rat control (Wodzicki, 1968). However, in many territories cats which became feral have made a considerable impact on native animals, birds in particular. Feral cats are still present on some of the Line, Phoenix, Marshall and Northern Cook islands, and feral dogs are found on some of Phoenix Islands where they prey on marine birds (King, 1973).

Despite existing damage caused by previous liberations, the idea of further introductions is still alive! In 1975 the South Pacific Commission suggested the introduction of goats and sheep to the Tokelau atolls. Spectacular denudation on high islands, such as the Marquesas and Gambier Islands, by feral goats and sheep led to extensive erosion. The final result is the gradual disappearance of native forest and its associated biota (Thibault, 1973).

Forest fires. A considerable discussion took place at the Noumea meeting on fire as a tool of the farmer and its impact on forests in various Pacific Islands (South Pacific Commission & IUCN, 1973). Today, bush fires are still a very important factor leading to the destruction of native forests and other vegetation in many Pacific islands. Such fires are particularly frequent in Tahiti and some other islands of French Polynesia. According to J. H. Drollet (pers. comm.), 'Fire is our No. 1 enemy because periodically entire hills burn through. These fires are due most of the time to carelessness'. The fires are mostly on fern land, i.e., areas dominated by ferns which have developed as a result of periodic burning. In New Caledonia bush fires are still a crucial conservation problem, perhaps next in importance to mining. These fires, whether lit deliberately by hunters or mine operators, or accidentally, involve many thousands of hectares. As a result, the margin of the native forest seems to be steadily receding.

Pollution

According to Johannes (1973, 1975) tropical waters appear to be more sensitive to pollution than cooler temperate waters. Sea-shore ecosystems subject to pollution include mangrove and sea-grass communities, coral reefs and reef pavement. Among types of pollution to be considered are sedimentation, flooding, sewage, power plant and desalination plant effluents, oil and chlorinated hydrocarbons. Air pollution created by the nickel factories occurs in New Caledonia, and in Western Samoa there is water pollution due to sewage discharge in the bays and lagoon, resulting in turbidity of the lagoon waters and accumulation of litter. Similar conditions exist in most other parts.

Pesticide pollution has been reported in Samoa and in Rarotonga, Cook Islands. The well-known palolo, a marine polychaete worm (*Eunice viridis*), is reported to have declined in both distribution and number in Western Samoa and is now found mainly on the southern coast of Upolu. According to K. Marschall (pers. comm.), this decline is due to increased and intensified top-dressing and use of pesticides on the land round the northern coast of Upolu.

In American Samoa the size and urgency of the environmental problems (Graf, 1972; Environmental Quality Commission, 1973) have led to the passing of the Environmental Quality Act and the appointment of an environmental ecologist.

Tourism

Tourism is another important conservation problem which is growing and has a still greater potential growth in the South Pacific. The Regional Symposium on Conservation of Nature (1973) provides the results of a discussion on this topic. Among positive factors one should mention economic and cultural benefits brought by tourism—important to small or isolated communities. Unfortunately, these favourable factors are counterbalanced by adverse circumstances, such as the impact on the aesthetic integrity of sites, on the natural water regime and the ensuing pollution. Of similar, if not greater, importance is the impact on animal life (e.g. the plunder of the reef by shell and coral collecting) and on man (conflict with the natural way of life or cultural and religious traditions). An opinion has been also expressed that no tourism should be allowed on atolls because of their high vulnerability to such effects.

Mining

Mining is one of the most important factors affecting the ecosystems in several islands of the South Pacific. Little information was obtained on the extent and effect of mining in the Solomon Islands, New Britain, Fiji, Nauru, and Bougainville. However, the nickel mining in New Caledonia and its effects on ecosystems are well documented (Latham, 1973; Parrat, 1973; Veillon, 1973).

Mining in New Caledonia is on a large scale, and it is expected that one-third of the island's soil will eventually be destroyed. Mined soils are very deficient in

nutrients and are subject to erosion. Waters in the interior of the island, in the lagoon, and around the reef are being polluted. The present form of mining in New Caledonia also results in the destruction of plant cover and progressive recession of the forest.

It is hoped that significant changes in New Caledonia following the establishment of two official bodies might at least arrest the deterioration described above (M. Schmid, pers. comm.). The 'Association pour la Sauvegarde de la Nature Néo-Calédonienne' was established several years ago. It has a relatively large membership and a considerable influence on public opinion. A second body, the 'Commission de Prévention des Dégats Miniers' was also recently formed, comprising representatives of the Departments of Mines, Forests, Public Works, and Science. This body examines any application for a new mining licence, can impose conditions, and can even refuse the granting of a licence. Although the destruction of land and forests has not been stopped, the work of both organisations is of great importance for the protection of what remains of the New Caledonian ecosystem.

Felling of indigenous forests (deforestation)

Recently, the dwindling of world timber resources and increasing demand by the Japanese for sawn logs, ply logs, and wood chips have profoundly affected tropical forests of the South Pacific. Existing primaeval forests on several of the larger Pacific islands are fast disappearing.

There are several inherent difficulties in exploiting tropical forests. Extraction of logs by caterpillar tractors, combined with a high rainfall, often leads to soil disturbance and compaction, and instead of the desired trees regenerating, a rapid growth of weeds appears. Often only a few desirable trees are mixed with otherwise non-commercial species, making selective logging very difficult and costly. The ecosystem is virtually destroyed, and it is unlikely that it can be restored to its previous state. It is well known that the ecology of tropical forests is still not well understood, and more research is badly needed.

Logging at present occurs both on 'mini-continents' such as Papua New Guinea and New Caledonia, and on volcanic islands such as Fiji, the Solomon Islands and Western Samoa. In the Solomon Islands tractor haulage of timber leads to severe topsoil disturbances, but although soon after timber removal the soil becomes covered by a mat of creepers—*Merione* and *Mikania*—it can still be re-afforested.

In Western Samoa some 560 to 600 ha are logged annually on both Savaii and Upolu. On Savaii all accessible timber will be felled up to an elevation of about 700 m. Logging takes out all exploitable timber down to a small size; the best land is cleared for agriculture and the remainder re-afforested. The target for tree planting is about 542 ha a year, mainly on Savaii. Here again, regeneration is hindered by the speed with which exotic creepers (*Mikania* and *Passiflora*) cover the exposed soil, inhibiting the germination and growth of young trees.

A similar situation exists in Fiji. The policy proposals of the Department of Forestry (1971) read: 'The balance of advantage would appear to be strongly in favour of felling, and selling, as much as possible, as soon as possible'. For over two years, Gorman (1975) conducted a survey of birds by habitat and altitudinal range. He concluded that forestry practice, including felling and the planting of large areas of exotic timber trees, will 'have far-reaching consequences for the avifauna of Fiji'.

Large tracts of primeval forests are being felled in other lands. Thus in the New Hebrides extensive areas of forests are being cleared for pastures.

Other activities

Other activities which affect in varying degrees the ecosystems in different islands include the rapid increase in human population, land development, including land clearing for roads and housing sites; the expansion of agricultural land; the expansion of industry; and various local destructive activities, such as dynamiting the reef and using explosives for fishing.

As foreseen by Doumenge (1966), the flow of people from small and remote islands to 'mini-continents' (including New Zealand) has continued. At the same time the population on the large islands has continued to grow, necessitating more housing, more roads, and more land for growing crops, etc.

SPECIAL CONSERVATION PROBLEMS

Important aspects of nature conservation in this part of the Pacific include the problems of rare plants and animals, pre-European conservation measures, environmental education, and the present prospects of nature conservation.

Rare plants and animals

Rare species in the area under discussion have been reviewed by the author (Wodzicki, 1973). The inadequacy of available information is shown by Holyoak's (1974) discovery of two new bird species (a swift and a kingfisher) and of three new subspecies in the southern Cook Islands. Holyoak also noted 20 plant species on the hillside forests of Rarotonga that are found nowhere else, and he recorded the Rarotongan flycatcher *Pomarea dimidiata* as very rare, its total population numbering only 50–100 birds.

In Fiji the National Trust (pers. comm.) has recorded five bird species that have become extinct, five endangered bird species, and four endangered reptile species. Mongoose and feral cats are blamed for these depredations. The National Trust for Fiji has also recorded seven rare and endangered plant species.

Reports from the American Trust Territory (Robert P. Owen, pers. comm.) state that the two crocodile species in Palau are not endangered. However, the Palau

scops owl *Otus podargimus*, the Palau megapode *Megapodius laperouse senes*, the Palau ground dove *Gallicolumba canifrons* and the dugong *Dugong dugong* are all listed as endangered species in the Code of Federal Regulations, Title 50—Wildlife and Fisheries—October 1 1978.

Thibault (1973) and Thibault & Thibault (1973) recorded the bird species which, since their discovery by Europeans, have disappeared from French Polynesia; endangered species are also listed.

The discovery of new bird species in the southern Cook Islands by Holyoak (1974) emphasises the necessity of plant and animal inventories in the various regions of the South Pacific. There is a danger that areas containing rare and endangered plant or animals species may be excluded from reserves or National Parks because of ignorance about the distribution of such species.

According to R. P. Owen (pers. comm.) turtles' eggs in the Trust Territory of the Pacific were in the past reserved for high chiefs. Today, conservation practices include restricted fishing areas involving prerogatives in the taking of fish and animals. Also, certain small islands are set aside as reserves where turtles, sea birds, and their eggs can be taken only at certain times and in certain quantities. These practices, however, are declining in effectiveness as traditional values dwindle.

On the Tokelau Islands the number of kanawa trees (*Cordia subcordata*), used for building outrigger canoes, that may be felled is decided by the *fono*, or council of elders. In the past, the number of young seabirds to be taken from nests were also established by the elders.

Some 800–1200 hectares of the Huvalu Forest on Niué Island were set aside in pre-European times as a tapu area. The tapu still exists, so this area represents a primeval Niuéan forest which has survived since before the arrival of the Polynesians and abounds in fruitbats, pigeons, land crabs, and other wildlife.

It is generally agreed that the ecosystems on many islands were relatively stable before man's arrival. On various islands Melanesians, Micronesians, and Polynesians realised long ago that certain trees and animals which were important to them required special protection if adequate stocks were to be maintained. Some of these ancient conservation measures survived to recent times, and the few still extant should be encouraged. They indicate a degree of ecological foresight that modern environmentalists are only beginning to appreciate. In the absence of any scientific rationale for conservation (Ratcliffe, 1976) such philosophical aspects are likely to assume increasing importance and deserve close study.

Present aspects of conservation of nature in the South Pacific

The Nouméa meeting (South Pacific Commission & IUCN, 1973) and the Agana, Guam, meeting (South Pacific Commission, 1973) have shown that the idea of conservation of nature is popular throughout the South Pacific. A logical outcome of these meetings was the Plenipotentiary Meeting held in Apia, Western Samoa, in June 1976. By adopting a Convention on Conservation of Nature a major step

forward in regional co-operation was made to protect the South Pacific environment. So far three governments (France, Papua New Guinea and Western Samoa) have signed the Convention and one (Australia) has announced its intention to accede in due course.

Pending the ratification of the Convention of Nature in the South Pacific considerable progress has been made in building up a South Pacific Regional Environment Programme. This programme has been approved by the governments and has been funded by the UNEP to be carried out by the South Pacific Commission on behalf of the various international organizations. It includes environmental policies on major problems affecting, or affected by, development activities, status of terrestrial and marine resources and environmental education. To attend to this programme a Regional Ecological Adviser was appointed with the South Pacific Commission at Nouméa. On the establishment of a consultant in environmental education, curriculum materials such as handbooks, posters, mini-lessons and films were provided and conservation weeks arranged. Some South Pacific countries are reported to be developing their own environmental education curricula, others are working to increase the conservation component in their school programmes. This programme should stimulate better environmental planning and management throughout the South Pacific.

DISCUSSION AND CONCLUSIONS

The odds against conservation of ecosystems in the Pacific are now greater than ever. World shortage of certain metals has resulted in an expansion of mining activities on several islands. This in turn leads to pressures on various ecosystems. Similarly important is the effect of a growing demand for timber. Disastrous changes in various ecosystems often occur after felling, and there is a lack of basic ecological and silvicultural knowledge of these primaeval tropical forests before or after felling.

Other threats to the various ecosystems include forest fires, particularly in New Caledonia, Papua New Guinea and French Polynesia, and increased pollution, mainly around the more populous centres. However, the greatest threat is the growing population, particularly on the high islands. It is possible to say that if the trend of population increase is not arrested many efforts at preserving various ecosystems may be frustrated.

Despite these important factors militating against nature conservation, the chances for preserving some ecosystems and their biota in the South Pacific are probably better now than they were several years ago. This qualified optimism is based on several facts. For example, there is a growing desire among the populations of various islands to preserve some of the ecosystems. Thus reserves have increased in number (e.g. in Fiji and Papua New Guinea) and range (e.g. Western Samoa, Tonga and French Polynesia). Also knowledge of island ecosystems and their ecology has substantially increased, particularly since the Second Inter-Congress of

the Pacific Science Association in Guam (Mueller-Dombois, 1973). There is reasonable hope that the work done so far may be extended to other areas in the Pacific.

Co-operation between the governments of various islands and international organisations is increasing. The UN Development Advisory Team for the South Pacific, the International Union for Conservation of Nature and Natural Resources, the South Pacific Commission, and the Governments of New Zealand and Australia all work in this area. The South Pacific Conference on National Parks and Reserves held in Wellington, New Zealand, on 24–27 February 1975 (NZ Government, 1975) promised increased co-operation, technical assistance, and funds for nature conservation work in the South Pacific area. The Second Regional Symposium on Conservation of Nature held in Apia, Western Samoa, in June 1976 adopted a Convention on Conservation of Nature in the South Pacific. This Convention, when signed by all the governments, will provide for a close co-operation between their conservation activities.

The first phase of a South Pacific Regional Environmental Programme has been launched in many countries of the region, with Government approval, and funded by the UNEP. This programme is being implemented by the South Pacific Commission on behalf of the various international agencies working in the Pacific and should stimulate better environmental planning and management throughout the islands. The United States is also providing assistance for nature conservation in American Samoa, Guam, and the Trust Territory, and the appointment of ecologists to the first and last of these and of a Regional Ecological Adviser to the South Pacific Commission, will provide technical knowledge for conservation development.

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Biological Conservation 21 (1981) 19–38

THE ROLE OF BURIED SEED IN COPPICEWOODS

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&

LENOOR OOSTERHUIS†

The Agricultural University, Wageningen, The Netherlands

ABSTRACT

The ancient coppicewoods of eastern England have high conservation value when managed as such, but neglect leads to loss of species from the vegetation. The present paper reports a study of the potential for vegetational recovery which is conferred by the presence of dormant buried seeds in neglected coppices. These seed-banks are discussed both in relation to the pattern of floristic change in the coppice cycle, and to the conservation of the coppicewood flora.

It is shown that many of the coppicewood plants are present as buried seed though absent from the vegetation, especially the light-demanding 'marginal' species which normally reappear after each coppicing in the managed system.

Very few species of the deep shade are present as seed, however, and because such species also tend to have poor dispersive powers, it is suggested that they are more vulnerable than the marginal flora to any extreme management changes which might lead to their complete disappearance from the vegetation.

INTRODUCTION

In eastern England, many of the native woodlands which remain are of very ancient origin; and like woods in many parts of Britain have, until relatively recently, been managed predominantly and consistently by a system of coppicing—perhaps for a thousand years in some sites (Peterken, 1974*a*). The continuity of woodland conditions—probably in some cases providing ecological links with the prehistoric native forest—together with the structural diversity and favourable microclimate

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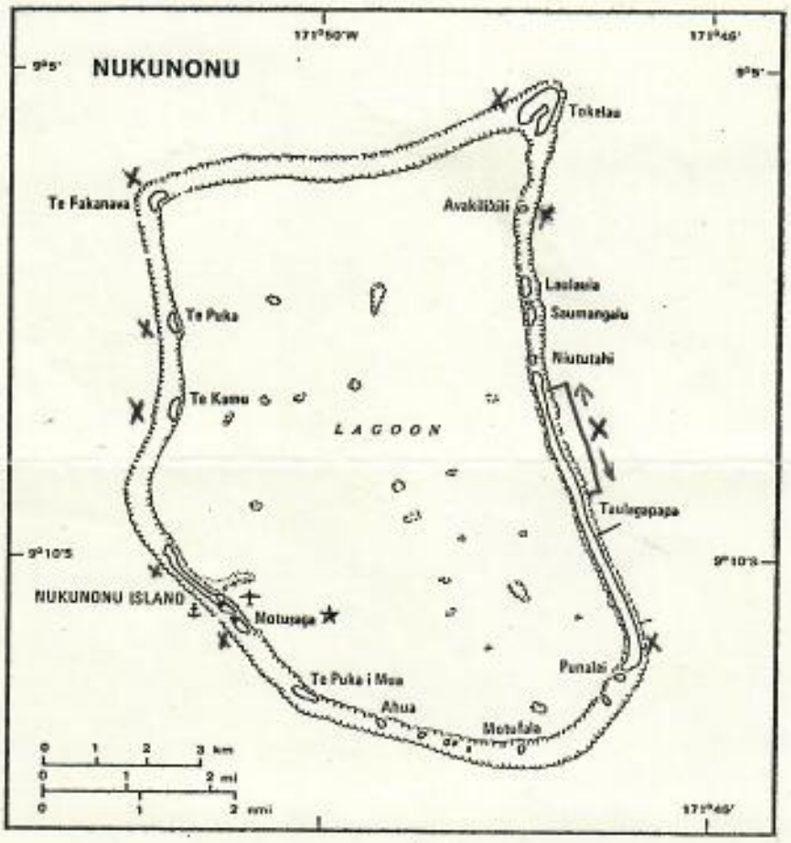


Please return to –

Matiti School,
Nukunonu Atoll,
Tokelau.
26th Feb.1980.

Mr. G. H. Balazs,
Hawaii Institute of Marine Biology.

Dear George Balazs,

I have received your letter and request for information and have done my best in obtaining it for you.
The information to the questionare is as follows;

1. Yes Turtles do nest and lay eggs at Nukunonu.
   We have 3 different kinds of turtles,
   1. Loggerheads
   2. Greens
   3. Hawksbills
Of the 3, the Greens are the most common with the Hawksbills being the least common.

2. Map enclosed.

3. The turtles do not nest all year round.
   They nest only in the months between June and December.

4. Approximately 5 - 6, nest each night on the whole of Nukunonu Atoll.

5. The people of Nukunonu eat turtles and their eggs, but it is not an important food source.
   Approximately about 20 were caught during 1979.

6. The only Law on catching of turtles and eggs is that it must not be kept and eaten by an individual or family, but be given to the village to be shared out amongst the families.

I hope this information will be of use to you and will be willing to assist you at any time in the future.

Yours sincerely,

Pricipal,
L. J. Perez.

TELEGRAMS: TOKALANI APIA
TELEPHONE: 20-822 20-823

P.O. BOX 865 APIA
WESTERN SAMOA

OFIHA O NA MEA TAU TOKELAU
Office for Tokelau Affairs

3 January 1980

Mr George Balazs,
Hawaiin Institute of Marine Biology,
P O Box 1346,
Kaneohe, Hawaii 96744.

Dear Mr Balaxs,

Although your letter was addressed to me at Fakaofo atoll, it has somehow found its way to me at the above address. Actually I used to be the Head Teacher at Fakaofo school but I had to be transferred to Apia two years ago for a new post but still for Tokelau.

I thought there would be no harm if I write to you from here with answers to your questions on sea turtles at Fakaofo. I am glad to assist you with the informations you require as I can see the importance of the project to Tokelau where sea turtles are now becoming rarer and rarer. Following are the answers to the questions.

1. Yes, turtles nest and lay eggs at Fakaofo - only one kind lay eggs there.

2. See map of Fakaofo (enclosed)

3. Turtles nest only during certain months in

4. On the average, only one/about every two months

5. Yes, the people eat turtles and eggs
It is a very important source of food.

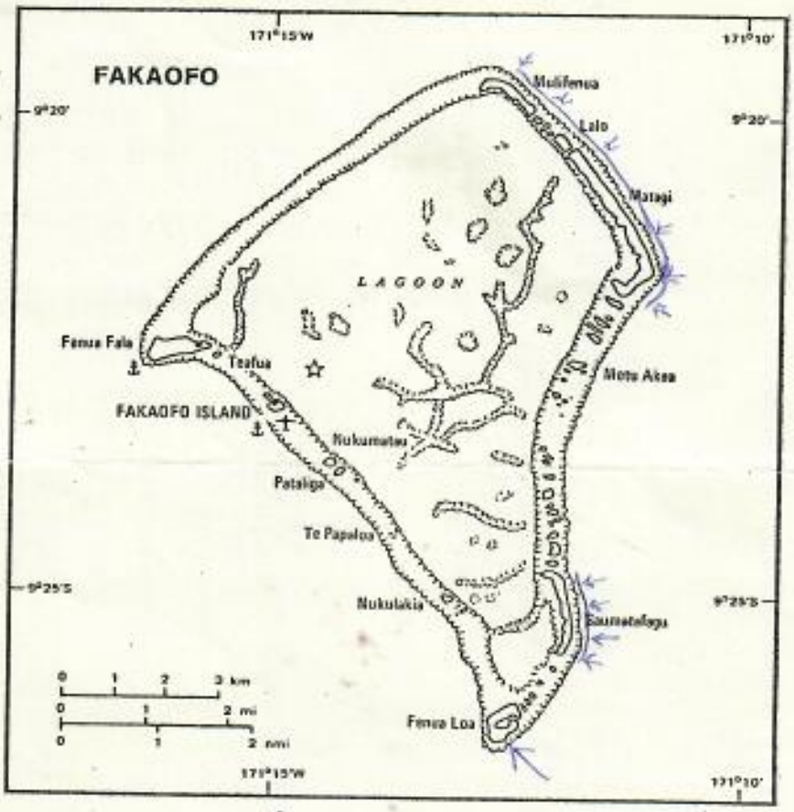
6. 9There are no restrictions or laws on the catching of turtles.

Yours sincerely,

H.Kirifi

(H.Kirifi)
for: Official Secretary

HK/ea



Please return to -

Matauala School,
Atafu Atoll,
Tokelau Islands,
11th April, 1980.

To: Mr. George H. Balazs
Hawaii Institute of Marine Biology
P.O. Box 1346
Kaneohe, Hawaii 96744.

Dear George,

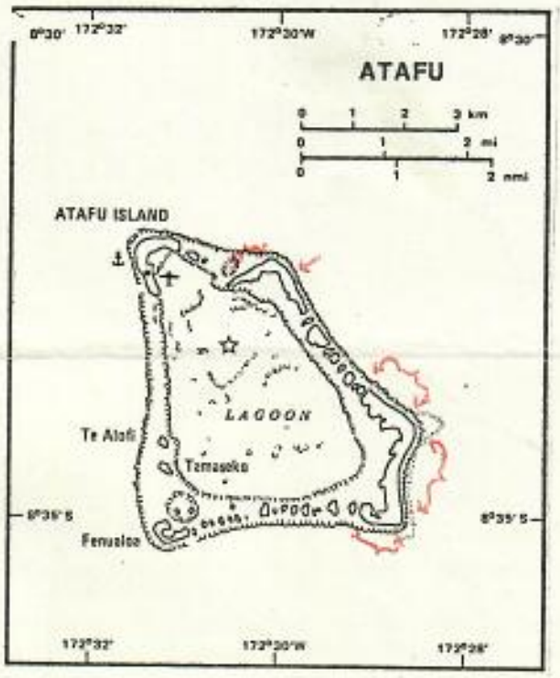
With regards to yuor urging about the information on sea turtles at Atafu, I will attempt to answer them point by point as you reqired.

1. The turtles nest and lay eggs on Atafu only one kind (the green turtle)
2. Please refer to accompanying map and for your interest, the islets on which these turtles nest, have sandy beaches and also they are the furthest points from the village. It has been noticed that, certain points on these islets appear to be preferable to much bigger ones, and this again is indicated on the map. One common physical feature of these points is that they are rocky and have very narrow sandy clearing between rocks and the shrubs.
3. The nesting season varies from year to year. Occassionaly from January through to July we have the odd appearance of turtles seen mating offshore or nesting. The rest of the year sighting are much more frequent particularly during September to November.
   For your interest this particular period had been refered to by our ancestors as the "Double Call" period. This is because since we depend very much on seafood for existence, bonito shoals and turtles are much more frequent together with the parot fish also spawning on the reef, hence the name "Double Call".
4. The number of turtles nesting per night varies from year to year. Within a nesting season (i.e.) July to December period), a month may past without a single green turtle coming ashore to nest. However the chance of having one nesting increases during the period between September and November. According to our elders the number that nested over the years remarkably dropped as also the nesting frequency. We now have something like once or twice or none per month during the nesting season.
5. The locals regard turtles' meat and eggs as delicacies also both produce a change of diet from the monoto-nous fish dish.
6. According to the elders, there were'nt any restrictions in the known past although they never killed the turtles for sport or @ any similar activities. But as of now the scarcity of this important source of meat has made it essential for the elders to put strict ban on the consuming of turtle eggs only. The eggs that are laid are being left alone to hatch but we catch instead the turtles.

However I would like to point out that whenever a turtle is caught, under no circumstances should catcher(s) be allowed to have any say on how it should be distributed because they are obliged by local custom to give it to the villagers and be shared by all. I sincerely hope that I have answered your querry to your satisfaction and also hope the information given will be of benefit to your project.

Yours Sincerely,

Tenise Atoni



Please return to -

in Oceanic, analogously to *'o* (*ko*) in *'o ia*, *ē* in *diya*, and *iz* in *izy*, this must be carefully distinguished from the *n* of the original Oceanic pronoun shown above.

One other point of comparison remains to be discussed relating to the particles prefixed to the personal pronouns—namely (Table I.) *n*, *k*, *z* (or *s*), and *i*. Of these, *n* has already been shown as used in the same way in the Asiatic group. As to *z*, it simply means "this," and is sometimes used in the Asiatic group also as a kind of article prefixed to the pronoun: Tigre *eziw*, he (*cf.* Hebrew *zeh hu*, and Ethiopic *zĕwtu*), *eziatom*, they or those. As *k'* is a demonstrative particle both in the Island and Asiatic groups it is sufficient to point this out, and to say that it is used, prefixed to the personal pronouns, analogously to *s'*; but much more could be said were this article not already too long. It is used thus prefixed to the pronoun of the third person, as Prätorius has noted, in the Guragne (a dialect of modern Ethiopic), in which *kua* is "he," *kia* "she," *kenam* "they;" and the same writer compares it with the well-known Ethiopic particle prefixed to the pronouns *kia*, as in *kiar*, us, ourselves; *kiakemu*, you, yourselves, &c. As to *i*, it is found in the Rabbinical Hebrew (and in modern Syriac) as in *ihu*, he; *iha*, she; and as *ki* was compared with Ethiopic *kia*, so this may be with the equally well known and similarly used Arabic *ia* or *iya*, as *iaka*, thee; *iakum*, you; *iana*, us; and with Tigre *i*, as in *ika*, thou; *ina*, we; *ikun*, ye; *iyatom* (=*eziatom*), they, &c. All these particles are demonstrative, giving emphasis to the pronoun to which they are prefixed. The *a* prefixed to *ku* in Malay *aku*, I, and in Assyrian *anaku*, I—*i.e.*, *an-a-ku*, may be compared with the *ha* in Syriac *hanan*, *ani*, above mentioned, and well known as a similar particle.

It seems sufficiently clear from the foregoing that the Oceanic pronouns are of Asiatic origin, and belong exclusively to the particular Asiatic family indicated. There may be room for difference of opinion as to this or that detail, but it seems sufficiently obvious that the—

Oceanic *aho*, *ku* compares with the Asiatic *ho*, *ku*, I
" *ik* " " " *ika*, thou
" *ni* " " " *'ni*, he (they)
" *ana* " " " *na*, *nha*, *anha*, we
" *ituma*, *kemu* " " " *atem*, *kemu*, you
" *in*, *inia*, *nia* " " " (*hem*, *ken*) *ani*, *'ni* (*inun*, *inin*) } they
" *ila*, *era* " " " *ele*, &c., these, those;

and, if so, the matter is substantially settled.

THE LINE ISLANDERS.

NOTES ON THE RACES KNOWN AS THE TOKELAUS, OR LINE ISLANDERS, CALLED BY THEMSELVES THE KAI-N-ABARA, WHICH MEANS "PEOPLE OF OUR LAND."

BY TUFUILA.

INFORMATION on this subject was extremely difficult to procure with a certainty of accuracy, due to two causes: The first is that the mission, who have undoubtedly done the Kai-n-Abara much good by putting down drunkenness and murder and establishing order, have also substituted our political economy for theirs; and there is now a difficulty in finding out the social state of the people before their own savage notions and practices were mixed up with ours. The second difficulty is, that in collecting this information piece by piece, a civilised man is naturally tempted to formulate a scheme proceeding from the known to the unknown or the probable. This he does in a logical manner. But savages do not reason logically from our point of view. Effects do not follow causes in their minds as they do in ours. After following a chain of reasoning, which to our minds leads up to a fact quite evidently, they stop short, and quite fail to perceive it. Therefore nothing must be assumed as having been their practice simply because it seems to us that it must have been so. As far as I can find out, they have not in any way considered the question of their origin. All they know is that they owe their being to their parents, and they differ from us in this, that while we hold that we are accountable to the Almighty for depriving of life any being brought into this world, they assert that their parents have the option of depriving them of it, and that it is the duty of their parents to them and to society to deprive them of it, if there is no adequate provision possible for their enjoyment of life and continuing it. With us the poor are sometimes inclined to say that they have been defrauded by some person or persons unknown of their rights—with them, the fact of his living (*i.e.*, the poor man) at all in a state of poverty is evidence of an offence against Society, perpetrated either by himself or his parents. No person has usurped his place, since he either lost it by his own action

or his parents had none to give him. In either case Society wipes him out calmly and relentlessly. This notion, which seems new perhaps, and therefore curious to us, is, if you examine it, a perfect answer to the Malthusian difficulty. That riddle, as proposed to us, consists in the difficulty of dealing with a swarm of living beings produced by Nature, which is an irresponsible and uncontrollable power, while no adequate provision is made by that power for their maintenance. These people, after considering a good bit, no doubt, have said the difficulty arises from the producing power being paramount and irresponsible. Impose a responsibility on it and the riddle has not only been answered, but ceases to exist as one. Now, as you cannot impose a course of responsible action on Nature, substitute for her a new controllable paramount power, viz., Society. Make Society and its members in one generation responsible jointly and severally for the productions of the next, the first social duty being to limit the numbers of that generation to the prospective maintenance available for them. This is their view, and I have thrown together a few facts regarding their customs, which show how they have carried out this leading idea, and also how they manage about the questions of succession, inheritance, possession, and social distinctions. They point to hard-headed, common-sense views, which are very interesting, as having been held and practised by an otherwise very uncivilized race, isolated in the South Pacific.

The Kai-n-Abara inhabit all the islands of the Gilbert Group, Nanumea, and Nanumanga in the Ellice Group, and Banapa or Ocean Island. Banapa is a small, high, rocky island, with no reef, and is about three hundred or four hundred feet high, very barren, with no surface water. The people who live on it say that their race originated there. It is to leeward of all the rest. The remaining islands of the Ellice Group are peopled by men of Samoan descent. The Line Islands language is different from most of the other Pacific tongues, and is said to resemble a civilized language more than any of the rest, though I cannot claim to give any opinion myself on this point. The form of dialect varies a little from island to island, but never so much as to cause conversation to become difficult, or meaning obscure. The islands are mere coral reefs, enclosing a lagoon of shallow water, into which there is sometimes a passage—sometimes not. One or two have no lagoons. The east part of the reef is the land, which never rises more than six feet above the sea level, the tide rising about three and a half feet only. The soil is pure white sand only. The only eatable productions are cocoanuts, with which every island is very closely covered, the screw-pine (*pandanus*), and a very few poor breadfruits. Cocoanuts and fish is the food of every one. They make a sort of golden syrup out of the juice of the cocoanut tree, and also an intoxicant drink by tapping the trees, and they say

that this was taught them first by white men.* It is curious, however, that this method of using the tree is unknown to every other Pacific people. They are apparently of the Micronesian type, but although they have long straight hair, and are more of a copper colour than brown, they are not pure Micronesian. The Missionary (a Mr. Bingham) who lived many years among them, thinks that they are more allied to the Japanese: he judges by their language.

They are intelligent, can reason inductively, are brave, having a very respectable share of courage, and are extremely pugnacious, both sexes fighting like fiends on the least provocation. Their favourite weapon is the knife, but they never stab. They also use a form of quarter-staff, fencing very well with it. Fists are sometimes resorted to to decide trifling disputes, but they shut the thumb into the palm of the hand in closing it, and cannot therefore strike a really heavy blow. Their great failing is insane jealousy. This keeps both men and women in constant hot water.

The islands are all long and narrow. No portion is ever more than three-quarters of a mile wide from the sea either east or west. All the houses are built on the west side of the land, out of the South-East Trade, and on the lagoon. The population is enormous in proportion to the size of the ground. The lee side of every island shows, to a person used to the other Pacific islands, as one continuous town. A message can be sent from one end of an island to the other by passing it by word of mouth from house to house. On a wet day, when the people are all at home, no one would necessarily walk twenty yards. The most of the distance the people would never have to rise, or go out to pass the message to their next neighbour.

Rank.

There are four ranks, which comprise both men and women, but all four do not exist in all the islands. In the southern portion of the group there are no nobles, consequently there are only three classes. The noble, it appears, has been formed from the gentle class by their marriage system, and they are only to be found in the largest and oldest islands. There are, however, none on Banapa, but it is very small, and has but few people on it.

The classes are nobles (*te uea*), gentry (*te aomata*), commoners (*te rau*), and slaves (*te kanua*). I have not been able to find out much about the noble class.

In talking of their belongings it is convenient to divide them into

* Captain Hudson, of the *Peacock*, one of the vessels of the United States Exploring Expedition, visited Karin Island in the Kingsmill group in 1840, and describes this "golden syrup" as known to the natives there. He says: "Their treacle is extracted from the spathes of the cocoanut trees, an operation which, if frequently repeated, destroys the trees." Captain Hudson took away from the Island a sailor named John Kirby, who had lived there three years, and from whom he obtained a good deal of information relative to the natives.—Editors.

real and personal property. The first comprises the land itself, all growing on it or erected on it, all wells or fresh water holes, the reefs, all the fish living on it, everything growing on it or found on it, and the right of fishing in the deep sea. Personal property consists of stored food, pigs or poultry, and dogs, mats, nets, household utensils, weapons, tools, canoes, oil-troughs, or whatever is made either by or for a noble or gentle person, or is given to a commoner by his landlord. The noble and gentle classes own the whole of the real estate between them; but while every member of these classes can fish—either at sea or on any part of the reef indiscriminately—each one has a well-defined piece of land solely his or her own. The fact of owning a piece of land, however small, is the cause and the test of the rank. Should one of either class by any means lose all his or her land, then he or she becomes a commoner at once.

The whole of the islands are cut up into small blocks of land, like a chessboard. The blocks on the lee side are town lands, and much smaller than those on the windward side, which are farm lands. All the inhabitants live on the town lands, and, as a rule, within 800 yards of the sea. There are, here and there, a few houses on farm lands. The boundaries of these blocks are well known, and, although a block can be divided if an absolute necessity arises, in practice this is never done. (This appears to me to be because they are now so small that no person could live on less than one.) A landowner—either man or woman—can hold any number of these blocks—a wealthy married couple holding between them as many as fifteen or twenty (the blocks, as far as I can learn, run from one to two acres). But of course these are not contiguous, a man's estate being "peacocked"—to use an old Australian term—all over the neighbourhood. Although, to a stranger, the houses would form an almost continuous village, the people recognise divisions among them, the inhabitants of say every 500 or 600 houses forming a sort of community, among whom the ties of relationship and intercourse are more intimate than with persons outside of them. Marriages generally take place between members of the same town, but also exceptionally with strangers of their own or other islands. A landholder cannot be on all his possessions at once, and as it is *infra dig* for him or her to do work of any kind, except to make weapons, he employs persons of the lower class to work for him—to grow his crops, to catch his fish, to make his houses, mats, nets, utensils, weapons, tools, &c., to do for him everything that has to be done, including the guarding of his outlying lands from thieves. These are the commoners, or *te rau*. A commoner can do nothing without the license of an *aomata*, he cannot even live, since no portion of either land or sea belongs to him, and his presence without leave in any spot of either is a trespass, *punishable by death* if persisted in. They are

not tied down to any particular *aomata* as lord. They are free to offer their services to anyone or anywhere they may be wanted. The payment for these services consists in the right to enjoy part of the fruits of them, subject to the deductions made by the lord for his use. As a rule, this latter person takes almost everything for himself, the worker getting absolutely nothing but houseroom and food. The only restriction there is on the treatment he receives, is, that since the *aomata* cannot work at all without losing caste hopelessly, and *must* therefore have servants, the power of these servants to leave him makes him treat them fairly well in his own interest, so as to retain them as long as possible.

No *aomata* can marry a *rau*. Such a marriage would amount to a forfeit of his or her land, thereby degrading the offender. This keeps the land in the class. Nor can an *aomata-niki-rauroro* cohabit with a *rau* man without disgrace. An *aomata* man can cohabit with a *rau-niki-rauroro* without disgrace, but cannot do so with his own *kanua* woman; but he can take another *aomata's kanua*, paying him for the occasion. When a couple marry, their lands, formerly held severally, become joint property in the interest of the prospective family. If a woman has sisters, then those sisters become the wives of her husband on her own marriage, and no other man can ever take them to wife. Their share of the land goes to the household along with the wives. (The marriage with the wife's sisters is not always consummated; she—*i.e.*, the sister—gives up her land and becomes a harlot—*niki-rauroro*—with a *right* of residence in her sister's house.) Marriage is only dissolved by death, that is, inasmuch as it affects the position of the couple's property. A divorce can only be a *mensa et thoro*, not a *vincula matrimonii*—the woman becomes a harlot without losing caste, the man takes another as concubine. Neither party to the divorce can have any children after it. A widower can take another wife on the death of the first, but a widow cannot take another husband. (This vests the land in the children irrevocably.) No married pair are allowed by their laws to have nor bear more than four children, that is, only four children get the chance of life. The woman has a right to rear, or endeavour to rear, *one* child. It rests with the husband to decide how many more shall live, and this depends on how much land there is to divide. When the family is grown up big enough for the oldest to marry, the parents divide two-thirds of the land equally among them—equally whether boys or girls—retaining one-third, on which they live themselves. Unmarried girls live with their parents, but boys go on their inheritance. This is not, however, invariable. After having made this division, the parents cannot have any more children, whether they have had four or not, unless they can get some other person to take it as *tipuna*.* It does not then get any-

* *Tipuna*, a sort of godchild.

thing from its parents but personal property during their lives. At the death of the parents the remaining third is divided among the sons and daughters, married and single respectively. If a couple die without children among *aomatas* the land goes to the male line.

A married couple can adopt a child if they both please. This child is called *tipuna*, and is somewhat like our godchild, only more closely related. It is reckoned in every way the same as are the children (if any) of the godfather and godmother. Marriage between it and its godfather or godmother or their children is incestuous. The godparents become full brother and sister to the real parents. Marriage between them is incestuous. But the godparents' other children, or the godparents themselves, are no relatives to the real parents' other children. The *tipuna* does not cease to be the child of his or her real parents: he has two mothers and two fathers, all equally reckoned as blood relatives. He is full brother and sister to his own brother or sister, and also to his godbrothers and sisters; but his own brothers and sisters are no relation to his godbrothers and sisters. This makes kindred very intricate indeed. A child can only be made *tipuna* at its birth. There is no limit other than prudence to the possible number of godchildren, but a child can only have one set of godparents.

When the parents divide the real estate among the children and godchildren they retain, as before stated, one-third for life, and all their personal property, including the marriage presents received on the girl's marriage. They are not by law required to give the children anything but the real estate, but as a rule they give the young couple a start with their housekeeping.

A woman's real estate, when single, belongs to herself, her personal property to her father, and her person is her personal property, together with anything she may receive from a man for the enjoyment of her favours. When married her personal property is vested in her husband, her real estate in her children. Her husband (*qua* husband) has no claim to it, but he manages it as trustee for the children, together with what was his real estate, now also vested in them; and he is responsible to Society for the proper discharge of his duties as trustee.

The *te rau* class can only acquire personal property by the leave of the *aomata* with whom they are living, but it cannot be taken away from them when once given into their possession. The man has the absolute disposal of his daughter so long as she is not married. As a rule he hires her out as a harlot or *niki-rau-roro*. He sometimes, but not often, does the same with his wife.

When food is scarce, as in a famine, the commoners are very badly off. They cannot even go fishing without leave from an *aomata*, and there is no work to do, nor any means of getting food,—and the *aomata* class is under no responsibility for their condition,—no matter how scarce it may be. They are consequently driven to steal food. If detected the punishment is death. It is the greatest crime that can

be committed. The person from whom they steal, if an *aomata*, may take them as a *kanua* or slave. In this state their life belongs to their master, and everything they are possessed of, including wife and daughters, is vested in him absolutely. He can inflict the death penalty any time he thinks fit to do so, even years after. He disposes of the wife and daughters, taking the payment for their prostitution, or rather his wife owns them. No punishment is inflicted for killing a *kanua*.

If an *aomata* murders a *rau*—*i.e.*, not in fair fight, or for some adequate cause, he or she must give the child of that *rau* a block of land, and thus it becomes an *aomata*, with all the class privileges.

There is in every township a large house called *maneaban*. Each family of *aomata* have a certain space given them in this house, which they and their servants, and slaves even, can occupy during the day at any time. It is the usual place of the *aomatas*, and old people. Each family has a certain part allotted them in it—as we have a pew in church attached to certain properties. All the social government is carried on in this house, and everything of a public nature is discussed in it. Decision is given by general vote, the majority carrying their point, as with us. The older and wealthier landowners have the most influence where there are no nobles, but do not seem to have more votes than any one else. Slaves, though present, have no vote—they are already dead men. No difference is made in the sexes; a woman can vote and speak as well as a man, and in general the women decide the question, unless it is one of war against another island.

Crimes and offences were punished by either fine or imprisonment, or determined by the general voice in the *maneaban*. As far as I could find, it appears that while every offence against the individual was compounded for by a fine (except perhaps murder), offences against society (such as stealing food, which made a man a slave) were mostly expiated by death, flogging, or imprisonment. This last-mentioned punishment was not, however, what it is with us. They did not lodge a man and feed him in idleness, or work him as we do; they put him for a determinate time into a place, out of which he could not get, and if he had no friends outside to feed him, and could not fast the whole time of his confinement, then he simply died of starvation.

A whole class of crimes against society has been swept away by the mission. These were religious crimes, which excited the wrath of the gods.

What these gods were is now very difficult to ascertain. The Supreme Being was beneficent. His name (he seems to have been masculine, and I can find no trace of any feminine divinities) was Te Atua.* Thunder was his voice, and he was believed to be really

* The Rev. Dr. Turner, in his "Samoa," says that the gods of Nanumea were Maumau, Laukiti, Folaha, and Telalai; those of Nanumanga, Foelangi and Manman. The tradition is that the people came from Samoa. A good deal of information (of a sketchy nature) will be found in the work quoted, relating to these groups of islands.—Errons.

present in certain black, or rather green, stones, which were found at long intervals in the roots of the drift timber, of which large quantities came ashore at times. There appear also to have been a vast number of other gods, called *jungi;* a few were good, but the greater number evil. The most powerful and most dreaded of them was Momung or Mummong, that is, the earthquake wave, which sometimes floods the whole of an island many feet deep. Every natural phenomenon was supposed to be under the control of one of these *jungi*. The people were divided into two sections, one of which worshipped the *atua* and the good *jungi*, while the others worshipped the evil powers.

Each household had an idol, to which offerings of food were made, and to which requests were addressed. I am not clear whether these were real idols or fetishes.

There appears to have been a class of men who might be called priests, who held conferences with the spirits, and being—as far as I can understand, very clever ventriloquists, were able to bamboozle the natives to any extent.

I am told that at one time on one, if not more of the islands, they commenced cannibalism by eating thieves and slaves, but the custom does not appear to have been general, and did not last long. It was in the most populous islands that the practice obtained.

Commoners incapacited by age or infirmity, or merely unwilling to work, got their living by mendicancy, the woman by prostitution. Large numbers died during hard times sooner than steal food.

The women were divided into four classes: (1) *Matavuro*=girls, (2) *aine numa*=matrons, (3) *kibono*=virgins, (4) *niki-rau-roro*=harlots. The first were simply unmarried women—not necessarily virgins. Intercourse between the sexes was perfectly legitimate without marriage. This was, in fact the rule, marriage the exception. The woman was free to accept as many men as would take her, provided they paid for the privilege. The payment, however, except in the case a widow, did not belong to her. If *matavuro*, it went to her father; if *kanua* (slaves), to her master. It never goes to her son. A woman who grants her favours without payment is regarded as a prostitute (in the worst sense), and despised. A *niki-rau-roro* (harlot) is merely earning her living in a legitimate way, and is greatly respected and envied if successful in doing it. But she must rear no child. Marriage was not common in the *rau* class, since no real estate was owned. The man took a *niki-rau-roro* as more or less his own, living with her continuously. As she could not rear a child while she was a *niki-rau-roro*, the couple, if desirous of having a child, would make a bargain with an *aomata* either to take their child as *tipuna*, or if female to take the child's earnings as *niki-rau-roro*. If the child was a boy, and the *aomata* refused to have a male *tipuna*, the question of his life was referred to the people at the *moncabau*. If they decided that the boy

was wanted he lived; if not he was killed. Female children were seldom killed, as they were a source of profit. The *niki-rau-roro* and the *aine numa* who had had four children practiced foeticide by pressure on the womb. In Nanumea and Nanumanga the women were delivered in the sea, and of course the child died. The women are very prolific, and very healthy. They have very few diseases. Although they lose their virginity at ten or eleven they carry their years well. A woman of forty or forty-five has often a very fresh appearance, and no grey hairs at all; she is sometimes still breeding at that age, and is a great-grandmother at the time.

Te Uea (nobles—the word actually means controllers). I do not know whether this class exists in the same islands as the *aomata* They are in the northern part of the group. The difference between them and the *aomata* is in the disposal of the real estate. This is vested among them in the women only, and in two divisions of the women, viz., the *kibono* and *aine numa* (virgins and matrons). When a woman becomes *niki-rau-roro* she loses her real estate. Marrying is therefore still more restricted, and real estate more kept together; indeed, it seems that it would accumulate, as on a matron's death it passes to her daughters, who are either virgins or themselves matrons. The husband lives on his wife's land, with certain privileges which are unknown to me. Adultery deprives a woman of her standing, *but only if resented by her husband*, and I rather think deprives her of her land, by passing it to her next heir female, the husband having a kind of life tenancy. They employ *rau* people as the *aomata* do. A woman, as a rule, rears only one heir; her other children become *niki-rau-roro*. If, therefore, this one dies before she succeeds, and after four have been born, the whole of the real estate must go to another real estate holder. On marriage, proof of virginity is required. It must be conclusive, and is jealously enacted by the person who would succeed, should it be wanting. The "bedding" is a public ceremony.

The houses are all, or nearly all, two-storied, the loft being on the wall-plates. There are no enclosed sides to the lower portion of the houses; in wet and windy weather mats are hung up as a screen. The people eat below, sleep upstairs, and keep all their food and property up there. There are windows in the gable ends. The measurement of the average houses would be 40 feet by 20 feet, and the wall-posts 10 feet high. The roofs are very high pitched to give room upstairs. Their extraordinary good health and vitality is attributed to living off the ground. They bathe *at least* once every day, and afterwards oil themselves all over. The men and women bathe separately.

Their canoes are of the outrigger type, the same as seen in Fiji. They are built up of very thin cocoanut slabs, cut down by the axe or adze and sewn together. Sometimes they are dug-outs made of drift timber.

The mission was established among them in 1857. Previous to that date the islands were the resort of sperm whalers, who went there simply for the use, or rather abuse, of the women, no stores being procurable. They had made the place a perfect hell, where might was right, drunkenness the rule, and chastity an unknown quantity. The natives are now much more elevated, are submissive to law and order, a drunkard is a criminal and chastity is much greater with them than is usual among barbarous and savage people. In many things they have become better, but in many, I think, worse. If more Christian, they are infinitely more lazy. Formerly masters of the question of undue increase, they now turn that over to Providence. The old way worked the best, I think.

The foregoing notes are, I believe, substantially correct. Many things have been omitted which have probably been the custom, because the evidence has been mostly circumstantial. The state of things narrated has now passed away altogether, but it certainly has an interest of its own, and seems worth placing on record.

NOTES AND QUERIES.

DR. FRASER desires us particularly to state, that the "Myth of Creation," published in the last number of the *Journal*, was written down in the original Samoan language over twenty years ago, by the Rev. T. Powell; and that he got it from Tauanu'u, the official legend keeper of Manu'a. Mr. Powell was for many years a missionary in Samoa, and had gained the confidence of Tauanu'u.—EDITORS.

19. *Re* query No. 12, by S. Percy Smith, Esq., Vol. I., p. 128, of *The Journal of the Polynesian Society*, referring to stone axes, green jade, &c. His Honour Sir William MacGregor, M.D., K.C.M.G., Administrator of British New Guinea, in his Annual Report from 1st July, 1890, to 30th June, 1891, mention is frequently made of the stone axes of the natives. Sir William presented specimens of the weapons of New Guinea to the Geological Survey Museum, of Queensland; and on two of the weapons Mr. R. L. Jack, the Government Geologist of Queensland made the following report: " . . . the two weapons which you were good enough to present to the Geological Survey Museum, have a specific gravity of 3·56, a hardness (6) equal to that of orthoclase, and are fusible with difficulty on the edges of thin splinters, and not decomposed by acids. In specific gravity the mineral, or rather rock, exceeds that of the New Zealand jade by from one-fourth to one-sixth. The mineral saussurite—named jade by De Saussure—(lime-soda zoisite) is the only one of the group which has a specific gravity (3·26 to 3·35) equal to that of your specimens; but the behaviour of your specimens under the blowpipe, and with acids, shows that they are not saussurite. The hardness of the New Guinea specimens is too great for serpentine, although low for true nephrite. The hardness of the New Zealand jade varies very widely (3·5 to 6·5). The New Guinea specimens differ widely from serpentine and its variety bowenite (which approaches nephrite in hardness) in their behaviour under the blowpipe, and with acids. On the whole it appears to me that the material of the weapons must be classed with the jade of New Zealand. Its fibrous texture gives rise to the suspicion that it is really a mixture of the anhydrous silicate of magnesia and lime (nephrite), with the hydrous silicate of magnesia (serpentine); while its high specific gravity points to a large proportion of iron, which is confirmed by blowpipe tests." Sir William MacGregor himself says: "Mr. Jack classes the jade of Collingwood Bay with that of New Zealand." He also says that the stone axes of New Guinea are "not used as a tool in building canoes, or in any other such work; but they represent the standard of currency in great transactions, such as the purchase of a canoe or a pig, or in obtaining a wife. The natives always carefully explain that, as concerns the wife, the stone axes are not given as payment for her, but as a present to the father of the girl." The greatest standard of currency in New Guinea is the jade, or greenstone axe; in Fiji the greatest standard of currency is the

THE CASTAWAYS

A TALE OF CANNIBALISM

THE Tokalau, or Line Islands, as they are more popularly known to travellers in the Pacific Ocean, from the circumstance that they lie directly under the Equator, consist of a numerous archipelago of small islets, or atolls, the largest of which is not more than thirty-five miles in length. Longitudinally these islands are situated to the northward of the Fiji group, between 174 degrees and 180 degrees east. They are inhabited by a curious race of people, called, from the islands on which they live, the Kai Tokalaus. 'Kai' is the generic Pacific term for man. A Frenchman is known to the natives as a Kai Oui Oui, an Englishman a Kai Piritania, a Jew a Kai Tierusalemi, and so on.

From their general physical characteristics one would incline to the conclusion that the Kai Tokalaus are of Mongolian extraction; they have no sentiment or poetry in their composition, and it may be safely said that they are the most debased set of aboriginals existing in that part of the world. Of a naturally savage and bloodthirsty nature, they have made the Tokalau archipelago the greatest martyr field for missionaries in the South Seas. Cooked missionary often figured upon the unwritten *menu* of the festivals prepared for the island chieftains. And how any of these devoted men have managed to survive the risks and horrors of the Line Islands, and accomplish the noble results which have been attained amongst the people, is a wonder to travellers.

Apart from their ferocious instincts, the Tokalaus possess many curious personal characteristics which are not to be generally found in the other denizens of the Pacific Islands. Not the least remarkable of these

is the uncontrollable desire to travel. Family ties and bonds of affection have alike no hold upon the Tokalau if an opportunity presents itself by which he may travel abroad —he does not care where; if it be to the farthest ends of the world it is all the same to him. Without a word of adieu to his wife, his children, or his parents, the Tokalau will jump aboard a whaler for a three or four years' voyage, and leave his home without the faintest notion of ever returning to it again. If chance brings him back after the whaling voyage is over, well and good; if chance brings him instead to some remote corner of the world, thousands of miles away from the Tokalaus, it is all the same to him.

When the writer was reluctantly compelled, through shipwreck, to spend fourteen weeks upon one of the Tokalau islands, a few years back, a strange incident occurred. A party of eight of the islanders returned home from a neighbouring archipelago, where they

had been dropped by a trading schooner, in which they had recently come from San Francisco. They had been away from home for a period of nearly three years, during the greater part of which they had been travelling. Their story was a strange account of suffering and adventure.

The Tokalaus are low islands, having been formed by degrees on the crests of a series of coral reefs—a common physical occurrence in the Pacific Ocean. None of the islands are more than six feet above sea level, and the coco-nut trees, with which the islands abound, although most prolific in the matter of fruit-bearing, are stunted in growth when compared with the general height of such trees.

The sea currents are also very rapid and treacherous in these regions. Hence, in passing from one island to another in small boats or native canoes, the *voyageur* often loses sight of land, and when particular attention is not paid to the tide rip, or the

current, there is a considerable risk of being carried away to sea.

Nearly three years before the return of these eight survivors a mixed party of twenty-two Tokalaus—men, women, and children—started one afternoon from a mission station on one of the islands to visit the missionary on a neighbouring atoll. They sailed away before a very mild breeze in the whaleboat belonging to the mission. When they got well away from the land—out of sight of it, in fact—the breeze had almost died away. The sail was kept up, however—a thing which the Tokalau will always do while there is an ounce of wind to blow him along. He does not believe in doing with the oar, in a hot climate, what a thoughtful Providence will do for him with a few puffs of wind. And the matter of time is no object to the Tokalau.

The consequence was that night came upon the party while they were yet tossing gently about on the glassy water, many

miles from home and from their point of destination. The treacherous current had also been doing its work, and when, after a weary night had been passed, day again dawned upon them, they were far away from any chance of reaching land—for some time at all events. Unacquainted, of course, in the absence of landmarks, with their position upon the ocean, and confused as to the course which they ought to steer, the wildest disorder began to reign amongst them.

One steered in the direction which he thought the right one for a few hours, when, no land appearing ahead, he was violently ejected from his place at the tiller and replaced by one who thought he knew better. The boat was steered to all points of the compass, till at last the most sensible plan under the circumstances was resorted to—that of sailing away before the wind—going, in fact, wherever the wind had a mind to take them. The new course was no sooner proposed than it was unanimously adopted,

holding out, as it did, the prospect of an adventure in some foreign country—a prospect dear to the Tokalau's heart. The prevailing breeze in the Pacific during the greater portion of the year is from the south-east, and this breeze happened to be blowing at the period of the adventurers' resolve to sail before the wind. Days and weeks passed, and still they flew away before it, without, however, meeting with the slightest sight of land. The small amount of provisions which they had originally carried aboard had been long since exhausted, and the greatest trouble now in the immediate front of them was hunger. But to a set of cannibals a way out of such a difficulty was not long in suggesting itself. It was merely a case of the survival of the fittest. The weakest of the party went first. The young people were sacrificed, one by one, to satisfy the hungry cravings of the older and stronger ones. After the young and tender ones had been used up, the turn of the unfortunate

women came. The greatest economy in the use of the food was exercised, probably in recognition of the well-known human instinct that self-preservation is the first law of nature. And when at last the number of the whaleboat's occupants had dwindled down from twenty-two to eight, land was sighted ahead one morning. No accurate account had been kept of the time the adventurers had been at sea, but the period occupied must have been at least seven or eight weeks, for when they landed they found themselves upon the coast of Japan, some thousands of miles away from the Tokalau group. It may be imagined that the travellers created no small amount of astonishment and interest amongst the Japanese whom they first encountered. Taking note of the somewhat Mongolian features of the Kai Tokalaus, it is only natural that they were mistaken for some outlandish Chinese natives who had wandered across, or been reluctantly driven

across, the Chinese Sea. It was, of course, impossible for them to make themselves understood, except by gestures, and, after much parleying by that primitive method, they were eventually conveyed to one of the mission stations along the coast, where the good and patient missionaries, full of information regarding the mission work and the inhabitants of the Pacific, were able at last to discover that their unfortunate guests came from the Tokalau archipelago. They were retained at the station for some time, till an opportunity at last presented itself, when passages were secured for them upon a sailing vessel bound from Yokohama to San Francisco. The latter port, though far from being in the direction of home, would offer them many chances of reshipping in the direction of their own country, as a large number of trading vessels ply between 'Frisco and the Pacific Islands.

In due time the adventurers passed through the celebrated Golden Gate, and

were landed in San Francisco. Here their first care was, of course, to endeavour to secure passages in the direction of their home under the Equator. They were fortunate enough at last to get over one stage of the journey through getting berths on a vessel bound to Honolulu, the capital of the Sandwich Islands.

At Honolulu they fell into the hands of an enterprising American showman, who promptly opened negotiations with them to show for a brief season in San Francisco. The affair seemed genuine, as money was forthcoming, and back they went to the Californian capital in charge of the showman, who exhibited them there for a considerable time, and with the greatest success, as 'wild men from the interior of Thibet.' They brought back with them many of the bills and posters through which they had been advertised to the American public, and probably retain them yet as mementoes of their curious adventure. The showman

appears to have behaved very handsomely towards them, and when the engagement came to a conclusion they were well supplied with funds and other necessaries, and a passage secured for them upon the trading schooner which eventually landed them in the neighbourhood of the Tokalaus.

The islanders had, of course, long since given them up as dead, and a few of the survivors who had left wives behind returned to find the good ladies in possession of other husbands. This naturally caused some irritation, and the King of the island was called upon to King-Solomonise and otherwise adjudicate upon the matter.

Peace was restored when the writer left the place, but the Tokalaus had made up their minds that when they ventured upon the water again and the wind fell the order was to be—'Man the oars!'

THE SANDWICH ISLANDS—THE LEPER COLONY OF MOLOKAI

Most people remember the heroic conduct of Father Damien, the Belgian priest who voluntarily entombed himself among the lepers on the island of Molokai in 1873.

The kingdom of Hawaii will always hold a place in the minds of English people who care to dwell upon the travels and adventures of Captain James Cook. Loyal Englishmen, whose pride is the vastness of our great Empire—upon which it has been truly said that the sun never sets—whose pride it is also to remember that our Colonial subjects are, if possible, more strong and enthusiastic than the people at home in their devotion to the Throne and their desire to uphold and maintain the integrity and the unity of the

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NOTES AND QUERIES

[575] Field Notes and Three Legends Recorded in the Tokelau Islands.

Introduction.

During the past thirty-five years Atafu, Nukononu and Fakaofo, the three atolls of the Tokelau Group under New Zealand administration, have normally been visited for brief periods three or four times annually by small ships chartered by administrative officials in Western Samoa, and by Mission vessels about twice yearly; in post-war years these limited transport facilities have been augmented by occasional calls made by Royal New Zealand Air Force flying-boats based at Fiji. Olosega, ethnologically one of the Tokelau atolls, was formally placed under United States jurisdiction when the other three atolls were transferred, at Great Britain's request, from the Gilbert and Ellice Islands Colony to New Zealand administration in 1925; but as Olosega is still, in effect, controlled by the part-Polynesian grandson of Eli Robert Jennings, an American who settled on the island, with a Samoan wife, about a hundred years ago, and the Jennings' dynasty has never shown an inclination to permit non-Polynesians to visit the atoll, Olosega is visited even less often than the other Tokelau Islands.

Due to these circumstances the Tokelau Islands are the least-visited group of inhabited atolls in the South-west Pacific, and therefore it is not surprising that only one reference work resulting from a protracted visit to any of these atolls has been published since 1925; prior to which year the only authoritative information resulting from field work of an anthropological or ethnological nature was incorporated in Gilbert and Ellice Islands Colony official reports.

From 1925 until 1951 vital statistics were not recorded, but as far as I have been able to ascertain, Europeans, with the exception of less than half-a-dozen Mission workers at various times, have not been permitted to establish residence in the Tokelau Islands since the turn of the century. During the last quarter of the nineteenth century Portuguese settlers inter-married with Tokelauns, and the influence is still noticeable in physical characteristics of the islanders, particularly at Fakaofo.

The single reference work to which I have alluded is "Ethnology of Tokelau Islands," by Gordon Macgregor (*Bernice P. Bishop Museum Bulletin*, 146). Field notes for this work were collected mainly at Atafu during a four months' visit to the Tokelau Islands more than twenty years ago.

In view of the limited shipping facilities available since then, I should like to express my thanks to Captain Miller for placing my name on the crew list of his fishing boat *Joyita* when he was granted the first licence to fish in Tokelau waters, thus enabling me to collect these field notes at the four atolls, all of which were visited during a five-weeks' trip from Apia in mid-1955.

Legends.

In "Ethnology of Tokelau Islands" the author states (p. 79): "The tales of Tokelau contain many references to mythological characters and events found in tales from other parts of Polynesia . . . The only local stories are those concerning the native spirits inhabiting specific spots on the islands." His published records include eight non-local Tokelau stories-cum-legends.

The following three legends, not recorded in Gordon Macgregor's published work, may serve to confirm his observations and remarks concerning Tokelau tales and their relationship with tales from other parts of Polynesia. These legends concerning two characters from other islands were related to me at Atafu by a retired native medical practitioner named Logologo, who acted as interpreter for and provided information to Gordon Macgregor. I wish to follow Gordon Macgregor's example by acknowledging Logologo's assistance.

(I.)

When a Samoan named Lata and a Tongan named Vaka'ana, both living in Samoa, were talking one day, Lata suggested that they should collect brown grubs called *tupa*. The two men prepared faggots and, with Lata bearing a gourd, went into the bush, where Lata collected grubs in his gourd and helped to fill Vaka'ana's basket with grubs. Lata's basket was only part-filled. After they had returned to the village Lata said that he and his companion must sleep up a coconut tree, among the fronds. When they had climbed the tree, Lata kept asking his friend if he were still awake, and Vaka'ana kept replying in the negative. Eventually Lata received no reply to his questions, because his companion was feigning sleep. But Lata was not easily bluffed, and he waited until his companion had really dropped off to sleep, then descended the tree, scooped the grubs from Vaka'ana's basket into his own, which he took to his */ale*, and returned to his place up the tree. When both men descended the tree in the morning Vaka'ana found his basket upturned and empty. Lata told him that the grubs had tipped it over and returned to the bush. Vaka'ana believed his friend's explanation, and so the two men remained friends and shared many more amusing adventures.

(II.)

The chiefs in a Samoan village where Lata and Vaka'ana stayed had declared that nobody should climb a tall coconut tree close to the meeting house. There were many nuts on the tree. Lata and his friend discussed the chances of climbing the tree without being detected, but Vaka'ana said that it could not be done. That evening Lata pretended to be ill while the villagers were awake, but when they had fallen asleep he climbed and re-climbed the tree until he had brought all the nuts down. He ate and ate until he could eat no more, then he chewed the meat of the remaining nuts and placed some in the anus of each sleeping child, so that when they passed excreta their parents would think that many children had eaten the forbidden nuts. In the morning, when the villagers noticed that the tree's nuts were missing, they suspected Lata; but when they accused him, he replied that he had been ill all night, and told his accusers to examine their children's excreta.

(III.)

One afternoon Lata suggested to Vaka'ana that at night they should go fishing for *malau*. As the canoe was being launched at low tide in the evening, Lata told his companion to paddle the canoe to the reef passage while he (Lata) followed, walking across the lagoon which, as in other parts of Samoa, is shallow at low tide. Lata followed the canoe for a short distance, then returned to land, where he saw a *kaleva* perched on a young coconut tree. He killed the bird and placed it in his kilt, then waded out to join Vaka'ana in the canoe. They fished all through the night, with Lata in the stern and Vaka'ana in the

prow. Every time Vaka'ana caught a fish, Lata pretended to catch one. Vaka'ana often bailed the canoe, but Lata did not, as when there was water in the hull some of Vaka'ana's catch floated to the stern. At dawn Lata took the dead *kaleva* and tied it on his fishing line, then jerked it aboard and called: "I have caught a flying-fish." When the two fishermen counted their fish to decide who was the better fisherman, they both had the same number, except for the flying-fish, which made Lata the winner.

Note: A Tokelau action song is based on the foregoing. It has only one verse, repeated with increasing tempo till the dancers reach their climax:—

Koe Lata se tino talepepelo
Ko ke masua nonoa ko te kaleva.

A translation of the sense of this song is:—

You, Lata, are a liar
You tied the *kaleva*.

(Sometimes the Samoan *tangata* is substituted for *tino*—man—in the first line of this song.)

Language.

There is no dictionary or grammar of the Tokelau dialect. A few editions of school journals published by New Zealand educational authorities are no longer in use. Samoan-language bibles and the influence of Samoan school teachers and Mission pastors have Samoanised the language to a large degree.

"Ethnology of Tokelau Islands" contains lists of Tokelaun words and phrases, many of which are common to the Samoan dialect. The following Tokelaun phrases, and two words, have not, to my knowledge, been previously recorded in print:—

He tino e kave te kavega fafie: The face of the moon. (A loose translation—man carrying firewood.)

Lualua: Ship (as distinct from canoe). This may be an adaptation of a more general Polynesian rendition of "man-o-war."

U: Breast, male or female. (The Samoan *susu* appears to be less often used than *u*.)

Notes Concerning Names of the Atolls.

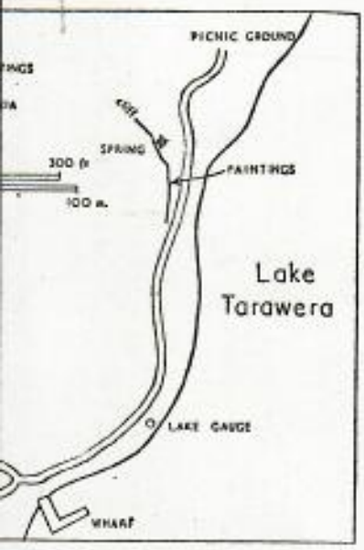
Nukunonu (place/island of the *nonu* tree) is incorrectly spelt Nukunono of postage stamps, maps, charts and official documents, and so has come to be spelt incorrectly as a general rule. Father Macdonald, who resided on the atoll for seven years prior to being recalled by his Mission headquarters in Samoa recently, states emphatically that the islanders always say Nukunonu, except when they use the other pronunciation out of good manners intended to please strangers who use the wrong pronunciation. *Nonu* also refers to a small insect.

Atahumea is the native name for Atafu atoll.

Fakaofo, loosely translated to convey the sense of the original, means: in the nature of surprise.

—Jack Thornton,
Relieving Editor,
Samoa Bulletin.

Tusitala,
Samoa.



arawera, New Zealand.

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1906: *Geol. Mag.*, Dec. 5, Vol. 3,
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4. As the paintings extend below
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—D. R. Gregg.

CORRESPONDENCE

Sir,

In "Field Notes and Three Legends Recorded in the Tokelau Islands," published in Vol. 64, No. 2, of the *Journal of the Polynesian Society*, I recorded *lualua* as a Tokelauan word for ship, as distinct from canoe, and I opined: "This may be an adaption of a more general Polynesian rendition of 'man-o-war'."

Thanks to the Society's recent (and excellent) reprint of *Field Notes on the Culture of Vaitapu, Ellice Islands* (D. G. Kennedy), I have now had an opportunity to read this author's valuable work; and I note that he refers to *lualua* as an Ellice dialect name for large sailing canoes of ancient times. Therefore, having regard for Tokelau-Ellice cultural links, it would seem that my Note regarding the origin of the Tokelauan word *lualua* was erroneous.

If I may conclude with a minor point: At the end of my "Field Notes and Three Legends Recorded in the Tokelau Islands," the Samoan name (*Tusitala-Samoa*) of the bi-lingual newspaper with which I was then associated was incorrectly printed as a place name, and this would tend to create the mistaken impression that *Tusitala* is now the name of some place in Samoa.

—Jack Thornton,
Box 656, Samabula, Fiji.

NOTES ON THE ELLICE AND TOKELAU GROUPS.*

TRANSLATED FROM THE "KARERE MANGAIA," 1899.

BY S. PERCY SMITH.

ONE of the native Rarotongan missionaries, voyaging with the mission ship "John Williams," in June, 1898, gives a brief description of the Ellice Group, in lat. S. 5° to 11°, and long. W. 176° to 180°. He says it is 400 miles in length from N.W. to S.E., and is composed of eight islands: Nurakita (uninhabited), Nuku-laelae, Funafuti, Nuku-fetau, Vai-tupu, Nui, Nano-mea, and Nano-manga. They called at Nuku-laelae which, he says, has just the same appearance as Manihiki Island north of the Cook Group. It is five miles long and three wide, including the interior lagoon, with thirteen small islets on the encircling reef. There were 141 people living on Nuku-laelae at that time.

Thirty years previously to their visit a slave vessel from Peru arrived there and took away 300 people to work at the guano fields in some islands adjacent to Peru; but not a single one of these people ever returned—everyone died.

He mentions a fish, called in Samoan an *atuata*, which for the greater part of the year is freely eaten, but for part of the year is quite poisonous. The breadfruit, *puraka* (giant *taro*), the banana, the *taro*, all grow at that island, but holes have to be prepared in which rubbish is placed to rot, and then the *taros* are planted in it; this is a custom from the ancestors of the people.

The language of these people is like that of the Samoans, from where they say their ancestors came. The island has been visited by the warriors of Tonga in former times.

NUKU-FETAU ISLAND.

The writer relates a story from this island that has some of the features of the doings of Whakatau-ihu of Maori story. I translate as follows:—"This is a story that these people have, that on one occasion a war-party arrived at their island a long time ago, and a great many of the people of the island were killed, the others escaped. One of the prisoners taken by the war-party was the son of the chief who had been engaged in the fight. The war-party decided to kill the

* "Te Karere Mangaia," p. 5, January, 1899.

youth and then cook him. He begged of them to first let him show the warriors how they danced in Nuku-fetau. This was agreed to and all assembled to see the sight. The young chief danced, and jumped so high that his head struck the ridge pole of the house. After this he asked them to allow him to go outside the house to cool himself, and on their consenting, he said he would fly, and he did so, flying away to a high place, and did not return but flew away to his own home. Here his mother was outside her home lamenting his death, when suddenly she saw her beloved son descend from the sky in front of her.

NIUTAO ISLAND.

It was said in heathen times that two women named Pai and Vau made this small island. They came from the Gilbert Islands, with baskets of earth, which they scattered about and thus made this land, and several other islands. But the country from which the people came was Samoa. There were two canoes that drifted away from Samoa, one of which landed at Vai-tupu (another of the Ellice Group) and the other reached Niutao. The god of these people was named Kulu. They used to pray to his idol at meal-times so that he might give them coconuts, fish and rain, and protect them from sickness. They believed that on death the spirit went to the sky. They never lit fires after dark lest the gods should be alarmed, and would not communicate with the people.

ARORAE, OR HURD ISLAND, GILBERT GROUP.

The following peculiar custom is described in the same account of the voyage of the mission ship, as translated below: The island is six miles long and one and a-half broad, with a small internal lagoon. According to their own account, the people came originally from Samoa, but their (present) dialect is that of the Gilbert Islanders (i.e., semi-Micronesian). Tapu-ariki was formerly their chief god, in whose temple is a very large *pana* (tridacna) shell which represents him. On entering the temple each one carries an offering of food, etc., and deposits it in the shell, after first dipping the hand in water and sprinkling it over themselves, so that Tapu-ariki may not be angry with them.

They have one law in reference to stealing, adultery, or man-killing; it is death. The young women are not allowed to go outside the houses until such time as they have to choose their husbands, which is done in the following manner: The houses are two-storied, and the girl about to choose her husband remains on the ground-floor, whilst the young men who desire her for a wife assemble in the upper story. Each man takes the stalk of a coconut leaf, and passes the end through the interstices of the floor, holding one end in his hand. The

girl takes hold of the leaf-stem and asks, "Whose is this?" When the young man tell his name, if the girl does not approve of him, she lets go the leaf-stem. She then tries another or others, until she gets hold of the leaf-stem belonging to the young man she desires for a husband, when she pulls the leaf-stem through the floor.

The families of the man and the girl then prepare a marriage feast, and the ceremony is performed by one of the parents. The young couple stand together and bow down before the parent, who takes hold of the hair of each of the couple in his hand and pours on to their heads the liquid contents of a coconut—and this ends the ceremony.

FAKAOFO OF THE TOKELAU GROUP.

There are four islands in the Tokelau Group, Atafu, Olosenga, Fakaofo and Nukunono, over all of which the chief of Fakaofo had supremacy prior to the hoisting of the British flag on the 20th June, 1887.

The following is one of the old traditions of the people: In olden days Feuku was the ruling chief of the group, who lived at Nukunono, and on one occasion he banished one of the minor chiefs to Fakaofo. Some time after this the banished chief made war on Nukunono, when the people of the latter island suffered a defeat and a great many people were killed. On this Feuku asked his eldest son to sacrifice himself in order that his blood might be sprinkled over the Nukunono people. It was a custom of the people of this group that if anyone was smeared with blood the enemy would not kill him if he laid down. The young chief consented to the wishes of Feuku in order to save his own people from death; and so he was killed and his blood sprinkled over the people.

In order to commemorate this sacrifice the people of Nukunono arranged, in case any warlike expedition again invaded them from Fakaofo, that they would not act as before, but fight for their lands; if they died, it would not be considered an evil. They acted up to this resolve on the next occasion when there was an invasion of their island from Fakaofo, and through the strength of the Nuku-nono peple the invaders were driven off.

This is the belief of the people of Fakaofo in former times in reference to the origin of mankind: The first man originated from within a stone, and his name was Vase-fanua. He decided to make a woman, and to that end gathered some earth and formed it into the shape of a woman's body. On completion he took one of his own bones from his left-hand side and placed it in the earthern body he had made. After a time the earthern body stood up a fully formed and live woman, to whom he gave the name of Ivi (a bone); and it was from these two that all men descended. [The author adds] we thus see that this story is similar to that related in Genesis.

Fire, according to them, originated from a blind woman named Mafuike, who guarded it in the nether-world. The following is the method by which it was obtained [for mankind]. Talanga descended to the under-world and asked the blind woman to give him some fire, but she would not consent to do so. Talanga then desired to kill the blind woman; but [on further asking] Mafuike gave him some fire, which Talanga brought to this world; and that is how mankind first became possessed of fire. Fire is not allowed in the houses of those people at night, because fire is *tapu* to their principal god Tui-tokelau [or as one of the Rarotongan native teachers spells it, Tu-i-tokelau—which gives quite a different meaning to the word]. A woman in child-birth is allowed fire; but if anyone wants to cook fish he has to go behind [? inland] and do so during the night. But this custom is no longer in existence.*

The name of their principal god in heathen times was Tui-tokelau; represented by a large stone which was covered with beautiful mats. The stone had a house of its own in the *marae*. The principal chief (*ariki*) was the chief priest, whose duty it was on certain occasions to replace the decayed mats by new ones. In the month of May all the people of Atafu, Nukunono and Fakaofo abandoned all the work during that month and assembled at Fakaofo, and prepared a great feast, and prayed to their god to protect them, at the same time making offerings of fish, coconuts and pandanus drupes; this was the new year offering. They also lit a fire in the temple of the god and held dances there during the night, men dancing with men, women with women. Such were the proceedings during that month.

Their belief was that the spirits of chiefs and priests at death went to the moon and there dwelt after death; while the spirits of the common people became stars.

Their axes in former times were made of the *pawa*, or giant tridacna shell. They were a persevering people as shown in their building of canoes, for it took them from twenty to thirty days with their axes to fell a tree, and when down it was a very laborous work to dub it into shape on account of the fragile nature of their shell axes. They also made *bukete* (? buckets) of wood, some of which remain to this day.

When the ships arrived at their island the *ariki*, who was also chief priest, was asked by the people whether they should visit it or not. If the chief went off, all the other people would do so also—this was the law. Always one man was placed in front of the chief carrying a coconut leaf to shade him from the sun. The *ariki's* chief

*This story of the origin of fire is common to all Polynesians, but varies from island to island. Mafuike is the Muhuika of Maori story, who is usually said to be Maui's grandfather, while Tulanga (Maori Taranga) was Maui's mother. Usually Maui is accredited with obtaining fire from the under-world.—Editor.

duty was to pray to their god to avert evil. They used to think that ships came from another world altogether, and that the people on board were spirits. When they saw the white people smoking they thought the smoke came from their interiors. Should anyone die during the visit of a ship they thought that the spirits on the ship had come to fetch the spirit of he who died. Such were the beliefs of the people of the Tokelau Islands.

ATAFU ISLAND, THE TOKELAU GROUP.

[The following describes a too common incident in the modern history of the Pacific. Many thousand Polynesians were kidnapped by the Peruvian slavers in the early decades of last century. Some 200 were taken from Niuē Island and landed at Sunday Island, because some virulent disease broke out, and there all but two miserably perished. Easter Island was nearly depopulated at the same time—not one of the islanders ever reached home again. And there are many other incidents of the same nature; the slavers seem to have confined their attention to the smaller islands as a rule.]

In the case of Atafu, the narrative I am translating says: On the arrival of the slaver at Atafu, Maka, the Rarotongan teacher, and another man went on board, where they learned that many Fakaofo and Olosenga people were on board, bound as prisoners. Maka, on learning this hastened ashore to warn the people not to go near the ship. But on reaching the shore they found that the chief of the island and about 200 other men had gone off to the ship. Not a single one of these people ever reached their island home again.

CLAIRVOYANCE AMONG THE MAORIS.

By S. Percy Smith.

With Notes by James Cowan.

I HAVE long been of opinion that the Polynesian people were acquainted with some branches of Psychic Science such as is comprised in the terms Hypnotism, Telepathy, Clairvoyance, Trance, etc., etc. Of examples of such powers we have many records when rightly read. But in nearly all cases the evidence is of a character that would not be considered "veridical" by Psychic experts. So far as my own attitude towards these powers of the old *tohungas* is concerned, the knowledge of psychics as practised by the (estimated) eighteen million people who are believers in it, came to me too late to allow of the necessary enquiries to be made among that class of the Polynesian people who understood and used the process. The old people are gone who really knew of the mental process by which they accomplished their ends; the few people left who retain some of these occult powers appear to be incapable of explaining them. The so called (by the newspapers) "tohungaism," is mostly fraud.

In what follows, one cannot guarantee the *bona-fides* of the cases described; they must be taken for what they are worth. They are not veridical in the true sense (excepting perhaps those described by Mr. Cowan), but are here given in the hopes that some of our members who are Maori linguists, and are interested in the question, will endeavour to obtain more precise information. Later on we may furnish illustrations of other branches of psychics, as known to this race. They at least illustrate the beliefs of the people even to the present day.

It was about 1853, or 1854, that a movement among the Maori people of the Taranaki coast took place, that is worth noting as an illustration of Māori mentality. At that time the people were decreasing in numbers very fast, due to various causes, largely to the contact with Europeans and their diseases, and the entire change in habits and beliefs also due to European contact. While acknowledging these causes as to their decrease as mentioned, the Maoris had, at that time, a theory of their own to account for their lessening numbers, and that was, the abrogation of the system of *tapu*; and they also saw

PROCEEDINGS.

POLYNESIAN SOCIETY.

A Special Meeting of the Council of the Polynesian Society was held in the Hempton Hall, King Street, New Plymouth, on May 12th, 1922, to consider the Society's future, owing to the death of the late President.

Members present were W. H. Skinner (in the chair), M. Fraser, R. H. Rockel, P. J. H. White and W. W. Smith. An apology was read from Captain Waller for inability to be present.

Mr. Skinner moved a vote of sympathy to the family and relatives of the late President which was duly passed. Mr. Fraser moved that the motion be also submitted to a general meeting of members of the Society to be held later on.

On the motion of Mr Fraser it was decided that a special memorial number of the Society's Journal be devoted to the late President.

It was resolved that an editorial be devoted to the late President in the special number, and also that the future aims of the Society be set forth.

The Council resolved that these and other matters be submitted to a special general meeting to be held at a later date.

A special general meeting of the Polynesian Society was held on June 7th, when Mr. Skinner explained at length the results of correspondence and interviews with several of the prominent members within New Zealand, with regard to the future conduct and control of the Society, and more particularly with reference to the editing and management of the Polynesian Journal. No one of those approached was willing to take over this responsibility, although ready and anxious to help individually in other ways.

The meeting then approved of the action of the Council in requesting Messrs. W. H. Skinner and W. W. Smith to undertake the duties of Editor and Sub-editor, respectively, of the Polynesian Journal in the meantime.

Dr. Gregory, Director of the Bernice Pauahi Bishop Museum, Honolulu, writes to say that the Museum has about 40 copies of the Index to "The Polynesian Race," by Abraham Fornander, which will be supplied to members of the Polynesian Society on request. We are not clear if a charge will be made for this work, and if so what the price will be, but have written making enquiries, and will announce the result of same later.

Will members please note that subscriptions (21/-) for the year 1922 are now overdue, and that an early remission of same to the Hon. Treasurer will greatly facilitate the working of Society. Kindly add exchange when forwarding cheque.

A NOTE ON THE TOKELAU OR UNION GROUP.

By S. Percy Smith.

THE above group of islands is situated north-east of Samoa in S Lat. 9° 26' and W Long. 170° 12'. The only account of the group that I know of is that given by the Rev. George Turner, LL.D., in his "Samoa, a hundred years ago and long before," published in 1884, which is well worth reading.

In a little book in my possession that once belonged to the Rev. A. Buzacott, the well-known missionary of Rarotonga, and which book I highly value as having been presented to me by the late Bishop W. L. Williams of Waiapu, I find some few particulars that may be of interest, as they were written by one of the Rarotongan teachers who accompanied the Mission ship on a visit to the Tokelau group in 1858. This little book is called "Te aerenga o te pāi Orometua i te pa enua etene 1857-1858" (The voyage of the Mission ship to the heathen islands 1857-1858), and was printed in the Rarotongan language at the Mission Press at Rarotonga, 1859. Unfortunately the name of the Rarotongan writer is not given, though it deserves preservation for the large amount of information he has recorded about the many islands they visited—information which is nowhere else to be found, and of which the following is only part, referring to one of the Union group, Faakafo, as the writer calls it, though Dr. Turner gives the name as Fakaofo.

The Mission ship arrived there on the 1st September, 1858, after four days sail from Manua island of the Samoa group. The intention was to land one of the Rarotongan teachers there to introduce Christianity, but the natives altogether refused to receive one, saying, "Where is he to live? There is no food for him, and he will die of starvation." They again attempted on the following day to persuade the chief to allow them to land one of the teachers, but without avail. All the people would consent to was to allow one of the two natives of Faakafo who had been brought from Samoa, to remain. It is probable that it was from these two natives the writer of the narrative obtained the information translated from the Rarotongan below.

He describes the island as very low and flat, with several little *motus*, or islands on the reef, only one of which is inhabited, and

which is the only one on which food grows, such food being coco-nuts, which with fish constitutes the food of the people. He then gives the following account of the origin of the islands—*Te Kapuanga ia o Tokerau*:—

"Tokerau is from beneath the ocean, and it was Tikitiki and Taranga who fished it up by a line and hook, and so it became dry land. They gave it the name of Tokerau; and after the land had become fixed in position, they caused people to occupy the land. These two had born unto them Kava, who had Ingano, who had Fio, who had Reuai, who had Raurii, who had Te Iro, by which time the land was filled with people from end to end and had multiplied greatly. Then the people set up their gods and gave them names—Tu-i-tokerau being the principal and most powerful god. His advent to Tokerau was witnessed by the people; he descended from the sky, and his arrival was accompanied by thunder and lightning. He is a cannibal god, and appears in the night when all are asleep, with a coco-nut leaf in his hand with which he snares the spirit of man from the body, and when daylight comes that man who has thus been acted on dies.

Another of their gods is named Ahi-moana, who is an assistant, or supporter of Tu-i-tokerau. Another god was named Akahotu, who had a separate *marae* at which he was worshipped; he alone occupied that *marae*, while Tu-i-tokerau and Ahi-moana had their own *marae* together. The following is one of the *karakias* addressed to these evil spirits; it is a prayer for abundant food:—

A KARAKIA IN THE TOKERAU ISLAND DIALECT.

[Anyone knowing either Maori or Rarotongan will easily obtain the sense of this *karakia*, but as there are some words in it not to be found in either of the above dialects, and, moreover, the idiom differs somewhat, so that a translation is difficult without a complete knowledge of the language. It is given here as a specimen of the dialect.]

To rau to rau to rau te vorae ao atua,
Kau mai ota e parapara kopui atua oroko,
O inumia o iua mimi te maunu
O taeao e tara mua e piri e ro,
O kiki atu kia te koe
Tau e apai atu ki o rima ma e vae,
Akaeanga ake ra ki to rangiina
Repetia fua i kai, e tai mukomuko,
E tai takataka, e tai komoto,
E tai kakari, e tai fara
Ina anga kiora ki to moana
Teatea ina tuku tere mai nga uta,

E tai atu, e tai fangamea, e etai fonu,
Eo te ara ei Taina to marae roa,
Tena ra to poroto, kua katoa,
Akina mana rava ki runga i to rangi,
Takariri rava kio tupuna marie,
Ko Io-o-a.

After the *karakia* has been recited then the food is partaken of by the *arikis*, the *matuiapos* (minor chiefs) and the *tawa-atuas* (priests), after which the food is distributed to all the people and a feast is held."

[In the above story of the "fishing up" of the island we recognise the usual story common to all Polynesia, in which the hero Maui always takes the principal part. In this Faakafo story Tikitiki and Taranga are the actors, but the first is another name for Maui, whose name in full, according to Maori story, is Maui-tikitiki-a-Taranga—which name means Maui-the-headdress-of-Taranga—the latter being his mother. The story varies from island to island. Sometimes it is Mahuika, or Mafuia, or Mafuike, who hauls up the land, Mahuika in Maori story being Maui's father, and he is connated with fire, probably volcanic fire. There are certain things in some of the Maui traditions which lead us to think that he was one of the early explorers and navigators in the Pacific. In many cases no doubt Maui's adventures have been carried by the various migrations and the story localized in the particular place in which we find it.—S.P.S.]

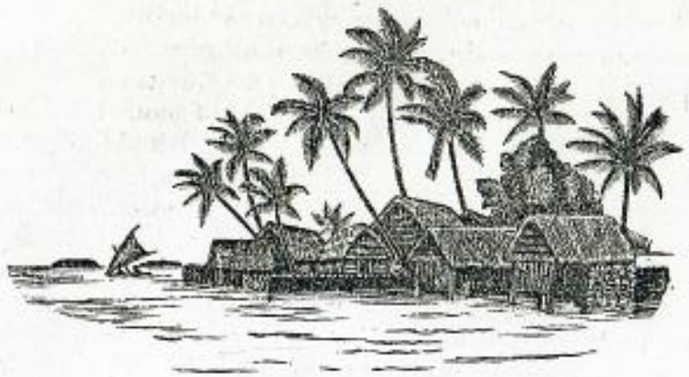
By the same author

LOVELY IS THE LEE
COMING DOWN THE WYE
SWEET THAMES RUN SOFTLY
A TRUE TALE OF LOVE IN TONGA
IORANA: A TAHITIAN JOURNAL
BLUE ANGELS & WHALES
JOHN GRAHAM, CONVICT
THE SEVENTH MAN
COCONUT ISLAND

Robert Gibbings

OVER THE REEFS

READERS UNION *with* J. M. DENT & SONS
London 1949



CHAPTER TWELVE

I FOUND LITTLE COMFORT in Apia until I found 'Tina's.' Then I found luxury; a large room for a study, with a bedroom adjoining, and both of them opening on to a balcony from which I could look across the harbour to the town and its encircling hills. Frank, the only other lodger in the house, was working for an examination and was also in love, 'either of them enough to keep a man quiet.'

'You won't be disturbed. I 'll see to that,' said Tina; and she did.

Instead of being a headquarters, the house very soon became a home. Whether I got back early or late from an expedition there was always a welcome. 'Come in, come in! Did you have a good trip? I made a lemon pie for lunch, I thought you 'd be back, but I saved a piece for your dinner. And I 've got you a bottle—on lease-lend from Frank. I said, Frank, that man 's coming back to-day, I must have something for him. Are you hot now? Do you want a shower before your tea? Mind the paint in the bathroom, it 's wet. There was a man in here asking for you, a Major somebody—said he met you

in Fiji. I said you were a busy man, couldn't see anybody. And that girl in the store, she came round wanting you to make a picture of her. I said you go along get your photo taken, Mr. Gibbings got no time for that, he 's working hard on his book. I 've taken the chair out of Frank's room for you; he doesn't need it. You can have another pillow from his bed, too, if you like—he won't miss it.'

Although Tina was strict with casual callers, established friends had no difficulty in finding me. Usually I had warning of their approach from Tina's conversation shouted to them as they mounted the stairs. 'Mind yourself on the back balcony; Frank 's got Nancy's bicycle up there. She left it on the road where the truck would go over it.' Or: 'Have you got any eggs at Mulifanua? I must have some. Mr. Gibbings likes them for his sandwiches.' Or: 'Why didn't you come in the daylight? I could have shown you my new banana plants.'

One day Captain Matheson of the schooner *Tagua* came to see me. They were sailing for the Tokelau Islands next day, he said, and there was a spare bunk on board. Would I care to come? The doctor would be coming too, on a tour of inspection, and there was a chap called Deasy, a trader, who wanted to have a look around. We would have a day or two at each of the three islands while they were putting stores ashore and taking copra on board. He suggested that I should bring with me any old shirts that I could spare, or a few lengths of cotton or some bars of soap, to trade for mats—'the best mats in the Islands,' he said.

So the following afternoon I was on board the schooner, and we were heading north for the Tokelaus, three hundred miles away. Nothing to do but sit in the shade of the mainsail, watch the sea go by, and listen to the chief engineer or Sparks, the radio operator, or Deasy, spinning yarns and arguing.

Deasy, who comes from Donegal, has been in the Islands for twenty years. 'Disi,' the natives call him. His fair

skin has never got used to the tropical sun and is constantly peeling, and his shock of red hair has never got used to discipline and is always in revolt. He is lean and active, ever ready to turn his hand to anything, but restless, never able to stay long in one place.

'I 'm a rolling stone,' he said, 'and I 'm gathering little moss; I 'm not even getting a polish.'

'You 're Irish and you 're just like the Samoans. You don't care much for hard work, you 'd rather sit about and talk,' said the chief engineer. He and Deasy were old friends.

'And may I ask,' said Deasy, 'why you 're sweating your soul out in the engine-room day after day? Isn't it only to earn enough to retire on and do damn all ever after?'

'The Samoans are the Irish of the Pacific. They 're always agin the Government,' said the chief.

Deasy stretched his hands above his head as if to claw down chunks of atmosphere. 'Isn't every country in the world agin a government that isn't its own? Isn't every patriot a rebel to the other side?'

'Let 's talk about love,' said Sparks.

'In the Cook Islands,' said the doctor, 'there 's a curfew at nine o'clock every night. Any one found out of doors after that is fined. It isn't so very long since any young couple walking together after dusk had to carry a lighted torch between them, just to show they weren't holding hands. Yes, and if a man was seen to cry over a dead woman that wasn't an immediate relation of his he was hauled off to the court and fined.'

The three islands of the Tokelau group, Fakaofu, Nukunono, and Atafu, to which we were sailing, suffered grievously from slave-raiders during the latter half of the nineteenth century. Between the years 1850 and 1870, and in particular during the period from 1862 to 1864, the islands were raided by ships from South America, 'blackbirding' for the guano islands and sugar plantations of

Peru. The population was almost exterminated. A native teacher, resident at that time on Atafu, wrote: 'This is my letter. Our country is destroyed. All our people have been carried away in a foreign ship. They were deceived by offers of trading. The captain told them to take off to the ship coco-nuts and fowls to sell, and he brought forth some cloth and a shirt and trousers, and said to the men, bring your coco-nuts and fowls to buy these things. Then I said, come on shore and purchase. The captain replied, I don't wish to purchase ashore; it will be better to buy aboard. . . . All the people of this island are carried off. They have taken the chief, Oli, who was in Samoa, and thirty-four other men. All that now remain here are women and children, and six male adults. Sir, it is most piteous to witness the grief of these women and children. They are weeping night and day; they do not eat, there is none left to provide food for them, or to climb the coco-nut trees. They will perish with hunger.'

At about the same time two hundred and forty-seven men, women, and children were kidnapped from Fakaofu, of whom only one ever returned; 'many of the women far advanced in pregnancy, others with children at the breast.' Only eighty inhabitants out of several hundred were left on Nukunono. It was a widespread traffic. From Nukulaelae in the Ellice group, five hundred miles to the west, they captured nearly three hundred out of a population of about four hundred. Not one ever returned. From Penrhyn, eight hundred miles to the east, they took close on a thousand, most of whom died away from home. From Pukapuka they took about a hundred, of whom only one saw home again. Easter Island, four thousand miles to the south-east, and others not so far away, Niue, Manihiki, Mangaia, all suffered in the same way.

But the only things that we hoped to take from the islands were spiders, rats, and mats. The doctor wanted all the spiders he could collect for a museum in New Zealand; he wanted to inspect the rats for fleas, which are carriers of plague, for the sake of the islanders; and we

both wanted mats for the sake of our floors. Meanwhile, having arrived, we had to get ashore.

The Tokelau canoes are very much bigger than the craft one sees in Samoa, many of them being up to forty feet in length—in the olden times still longer. Nevertheless, they do not inspire any great confidence. The bottom of the hull is composed of sections of a hollowed tree which meet, end to end, without morticing, and are held together with lashings of sennit. The sides are a built-up patchwork of many irregular scraps of wood shaped to fit each other, and, like the sections of the keel, sewn together with sennit—a technique evolved owing to the scarcity of large trees on the atolls. One's emotions are mixed when, a mile from the shore, with only a few inches of freeboard and a thousand fathoms of water below, one watches fountains of water pouring through the holes only partly filled by the stitching. But the Tokelau bailer is shaped to fit the inside curve of the canoe, and the flood of events is to some extent controlled.

The reef is wide, and successive lines of waves surge in obliquely. If, now, they are charging from the right, a moment later there will be a broadside from the left. Only by constant quick changes of direction were we able to reach calm water and wade towards the glare of the white sand, forgetting the glare of the sea.

Fakaofu is an atoll of sixty islets surrounding a lagoon, triangular in shape, about seven miles in length and five at its greatest width. The average height of the land above sea level is not more than a dozen feet. The whole population, of close on six hundred, lives in an overcrowded condition on one islet—so overcrowded that piers have been built into the lagoon to give further ground space for houses. Many of the other islets would be equally suitable for habitation, but there is rivalry between Protestant and Catholic congregations, and each needs all its adherents

close at hand. They still remember that one of their high chiefs was killed in a war between champions of the two creeds.

But the village is a model of town planning, with roads and paths carefully laid out and edged with stone. Even the chickens have their appointed roosts. Though free to roam during the day, each one returns at night to its own perch, set up over a rectangle of sand and edged with stones like the road.

No sooner were we ashore than it seemed to the crowd of inquisitive children who had surrounded us that the doctor was showing signs of lunacy. Pointing to the sky, he appeared to be offering cigarettes to any child who would go there. His audience was bewildered. At first they thought he was being playful for their benefit, and crowded round him; but, with further and more excited gesticulations on his part, they thought he was mad, and edged away. Just then the policeman appeared in sight. 'Come quickly,' shouted the doctor, 'come quickly! Tell them I want that spider. There it is—hanging from that breadfruit leaf, about two feet down.'

The children burst out laughing. The chiefs who had gathered to watch became solemn, as if anxious. This was the official who had come to inspect their health. But a boy went up the tree, and with a long wand entangled the web and brought the spider to earth.

'Tell them,' said the doctor, 'that I 'll give a cigarette for every spider they bring me.'

The children were incredulous.

'And tell them,' he added, 'that I 'll give two cigarettes for every rat they bring me.' This was too much even for the composure of the chiefs. They, too, burst out laughing. 'I want to see what fleas they are carrying,' said the doctor. That was funnier still. And because I had come ashore with the doctor, and because I seemed to understand what he was doing, I was classed as a potential lunatic. I couldn't move without being followed by a crowd of hopeful children. If I stopped to look at one of the long

poles, forked at the end, with which they twist the bread-fruit from the upper branches of the trees; or if I paused beside a house to look at the clusters of empty coco-nuts strung on sennit with which they draw water from their wells; or if I watched an old woman husking coco-nuts on an iron spike stuck in the ground; or a young man boring a hole in a piece of timber with the point of a spiral shell to make a patch for his canoe, my action was fraught with possibility. I might at any moment do something sensational. They found it hard to understand why I should be interested in a few balls carved out of a solid piece of wood. It was to them the obvious way of making and storing cricket balls. When a new one was wanted it was only a matter of cutting it from those that hung ready made in the house. That the doctor, too, should want to take away such commonplace things as fish-hooks and paddles, not to mention the wooden buckets with water-tight lids in which fishermen carry their food when at sea, was altogether astonishing.

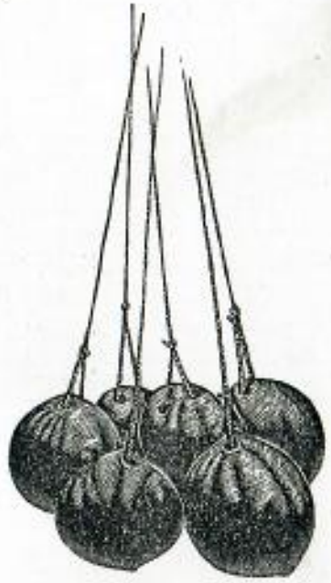
At Fakaofu mats were scarce, but at Nukunono we found profusion of them. Everything that we had taken with us for barter was soon exchanged; we had difficulty in retaining the shirts on our backs. From Atafu we came away laden with presents of fans and shell necklaces.

The voyage home was calm and uneventful, the schooner riding kindly to the long, gentle swell.

Deasy told us how, when living in the Cook Islands, he had fallen in love with a chief's daughter. 'I 'd have married her,' he said, 'if I 'd been free, but I wasn't—the same old story, never mind! I spoke to the chief about it, and he told her to come along. So she came along, and we were as happy as skylarks in May. She helped me in the store and I taught her a bit of cooking. Next thing the

pastor and deacons have me up before the Resident Agent, and I 'm fined eight shillings and she 's fined two shillings for misdemeanour. "Divil take the lot of you," said I, "'tis you 'll pay those fines and not me." And they did, though they didn't know it. I put a penny extra on everything they bought until they 'd worked them off.'

Tina gave me her usual welcome. 'Come in, come in! Did you have a good trip? Wait while I telephone—Granny saw you coming. Hallo! Exchange? Put me on to Mata again. What? No, you didn't! You cut me off, and I haven't got my eggs. I must have—what? Hallo! Hallo! Who 's that? What! Is that you, Tomi? Where 's Mata? You don't know? Well, what about those eggs? I must have them. I must have eggs for Mr. Gibbings's tea. You what? You don't know where to find them? Why, in the nests, of course. They don't lay in the palms. No, in the morning won't do. You go out and have a look right now. I 'm sending Elva round for them.'



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Nukunonu
Tokelau
12 Oct 84

received 1/7/85

Dear Balazs,

Thank you for your letter and the copy of your report on Tokelau Sea turtles.

The last couple months we got 4 turtles both couple. At this time of the year I could see quite a few around and I think more this year than the last two years.

I realise the sea shell has not been sold. So dont worry about them Balazs I am very please you can keep for yourself!

I still sending shell to our Office in Apia and they do sell them for me.

We are planning for holiday to Hawaii at Christmas but has not confirm yet. And we depend on the American dollar wether they devaluate or not and the worth of the US dollar is very high.

If it lucky we may see you again soon.

Love

L. Perez.

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Dr G R Hughes

30 August 1984

Mr George Balazs
National Marine Fisheries Service
Honolulu Laboratory
P O Box 3830
HONOLULU
HAWAII 96812

Dear George,

Thanks for your letter and paper received a few days ago. I thoroughly enjoyed the paper and was delighted to find that much of what pertains as attitudes towards and treatment of sea turtles parallels the attitudes of the Malagasy people in Madagascar especially the Vezo and Sakalava. Bear in mind that they are descendants of Malay-Polynesians that emigrated across the Indian Ocean in the c. 11th and 13th Centuries. Even the general name of sea turtle in Madagascar is Fano which is very close indeed to Fonu in your islands!

Did you consider that the "eight backbones" might be a leatherback - Joop Schulz has two names for his leatherbacks in Suriname with Aitkanti being one with eight ridges!

As far as debris is concerned I have come across lots of plastic beads etc. in hatchling guts and once I found a leatherback with a huge piece of heavy duty clear plastic in the gut. It measured 6m x 4m and was so tightly packed in the gut that we had to work extremely hard to twist it open.

see his previous reports

A more recent incident (photo included) also involved a leatherback that had managed to get a piece of nylon rope around a foreflipper. The animal came ashore near Cape Town on 1 August 1984. A colleague of mine Reinhold Rau from South African Museum, Cape Town, sent me the picture. The wound itself appeared to have healed but there was a huge weight of Mytilus mussels and goose-neck barnacles on the rope which would suggest that the animal has done little diving since it picked up the rope. These organisms are never found on adult leatherbacks under normal conditions.

The new/.....

The new newsletter is good news and I'm glad to see that Karen is putting things together. Look after yourself.

Yours sincerely,

George

ASSISTANT DIRECTOR CONSERVATION
for DIRECTOR

P.S. It isn't easy to get turtles on stamps out here!

University of Guam

MARINE LABORATORY
UOG Station, Mangilao, Guam 96913
Cable: "UnivGuam" Telex: 721 6275

March 30, 1982

Dr. George H. Balazs
Hawaii Institute of Marine Biology
Coconut Island
P.O. Box 1346
Kaneohe, Hawaii 96744

Dear Dr. Balazs:

Thank you for your letting me look over your manuscript. Although Tokelau is in Polynesia rather than Micronesia, we will stretch our jurisdiction for subjects such as sea turtles becuse the species are common to both regions. Since MICRONESICA covers both Biology and Anthropology, your paper would fit right in. Your manuscript seems very informative to me, but this may be because I know little about sea turtles. Our policy dictates that I must send it off-island to three reviewers for outside opinions on whether it warrants publication (I suspect it does).

Before I send it off, could you please make the following changes in format and style. If you can get it back to me by early May, I can get reviewers opinions in time to have it published in the December 1982 issue (assuming the reviewers find the manuscript acceptable).

1. Condense the wording as much as possible. For example, page 9 could be shortened considerably.

2. If Appendix I is necessary, reduce it to paragraph form, using colons, semicolons and parentheses.

3. If any of the photographs in Appendix II are necessary for substantive reasons, then label them as figures and refer to them in the text. Eliminate the rest.

4. Eliminate the subtitle "A project report..."

5. Eliminate the Table of Contents.

6. Add an abstract. Make it informative, not indicative. Include only important facts and specific conclusions; don't say "will be discussed," "are included," "are presented," etc.

7. Center major headings (Introduction, Methods, etc.) and use capitals and lower case (also for the title of the paper).

8) No footnotes. Either discard or, if an essential print, incorporate into the text.

9) Do not italicize the names of journals (in References Cited and Acknowledgements) or for emphasis (page 34).

10) Abbreviate journal titles and do not put a comma between the title and the volume number. Put the issue number in parentheses. Period between publisher's city and number of pages. Only one "p." after number of pages, not "pp.".

I hope this doesn't seem too picky, but as long as you are modifying and shortening the paper (as per your letter), these changes in format would make my work easier.

Sincerely yours,

CHARLES BIRKELAND
General Editor, MICRONESICA

CB:lbc

Enclosure

INSTRUCTIONS FOR CONTRIBUTORS

Research reports, review papers, bibliographies, notes, and book reviews in anthropology and biology are accepted on the bases of their originality and their pertinence to Micronesia and adjacent Pacific areas. Descriptions of new species will be considered formal papers, no matter how short; information on range extensions will be considered notes, no matter how lengthy. The language of publication is English, but summaries in another language are acceptable. Measurements are given in metric. Abstracts must be informative, not indicative. Footnotes are not allowed. Each manuscript received will be acknowledged and reviewed by at least two, usually three, specialists in whose field the paper lies. Authors will be notified as soon as possible on the decision reached. Manuscripts should be sent via airmail to the General Editor, *Micronesica*, Marine Laboratory, UOG Station, Mangilao, Guam 96913.

Manuscript: An original copy and two duplicates of each manuscript should be submitted. Text, tables, and legends should be typed on 8–1/2'' by 11'' nonerasable, white bond paper, double-spaced throughout. An abstract of not more than 300 words must be included for each research report. In the text, citations are to be made as follows: "it was stated (Smith, 1951) that . . ." or "Smith (1951) states . . .". References should be listed in alphabetical order by authors at the end of the text under the heading REFERENCES CITED as follows:

Gosline, W. A., and V. E. Brock. 1960. Handbook of Hawaiian fishes. Univ. Hawaii Press, Honolulu. ix+372 p., 277 figs.

Lessa, W. A. 1955. Depopulation of Ulithi. Human Biol. 27(3): 161–183.

Note

Illustrative Matter: All line drawings must be executed in ink and photographs must be of high-gloss finish. Illustrations in color will be printed only if the author bears the cost of reproduction. Legend for figures should be supplied on a separate page and placed with all figures at the end of text.

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8-8, 3-chome, Takadanobaba, Shinjuku-ku
Tokyo 160, Japan

5/15/82

George –

Thanks for your turtle-Tokelau article. Looking at it. Have you seen:

Coppell, W.G. 1975. Bibliography of the Kermadec Island, Niue, Swains Island, and the Tokelau Islands. Pacific Islands Studies Program Misc. Working Paper 1975:2. 98p.

It is still available from Bob Kiste of PIP at Moore Hall.

Also:

Krauss, N.L.H. 1969. Bibliography of the Tokelau or Union Islands, Central Pacific. 11p.

It is privately printed but UH Pacific Collection has this and other – I have it or Jean.

—. 1970. Bibliography of Swains Island, American Samoa. Private. 7p.

Have you seen:

Anthropological Working Paper – Staff Anthropologist, TTPI, Saipan — one is on beliefs about turtles in Micronesia (I think it's No. 2 or 3??).

– One gets leprosy by walking through the smoke of a burning turtle shell? (? Yap or Palau ?)

p. 26 Distribution as a caption is misleading until you read it – I thought it would be about where turtles were found!!
Dr Eldredge

TOKELAU

PRIDE IN ART—Kolokai S. Hullerman of Papua New Guinea displays handcrafted pieces to interested buyers. —Star-Bulletin Photo by Dean Sensui.

Pacific Island Trade Show Under Way

By Carrie Pressly
Star-Bulletin Writer

Exhibitors at a Pacific island trade show at the Pagoda Hotel say two of the main problems facing them are transportation and meeting the demands of international markets.

Representatives of 18 Pacific island countries are in Honolulu this week attempting to develop opportunities for exporting their products to the United States.

For many of them, the three-night exhibit at the Pagoda is their first approach to the American market.

For Caroline H. Kaliuae of the Solomon Islands, the trade exhibition is an opportunity to promote the art of the women in her country.

"Everyday someone would knock at my door and say 'please buy something,' especially the women. I said, 'Let me think, there has to be something I can do' . . . well, here I am," she said.

Koloa Talake, a volunteer for Save The Children Inc., is from the island of Tuvalu, population 8,000. "All the artifacts are made by self-employed women in a cooperative who sell to a center. I was coming to Hawaii, anyway, so I asked if I could take what they had and see if anyone was interested."

INTERESTED BUYERS and trade representatives can view products made from coconuts, dried bananas, fruit drinks, hand-tooled shell, bone and wood jewelry, hair ornaments, intricately woven mats, baskets and serving trays, and functional art pieces such as purses, clothing and toiletries.

Molio'o T. Vaeluaga, acting export manager for Samoa Coconut Products Ltd. of Apia, Western Samoa, said his bid to enter the international market has been successful.

"Coconut oil is the backbone of Samoa's economy. It earns 60 percent of our foreign exchange," he said.

"Our problem is in shipping to America. There are no regularly scheduled vessels. Sometimes we have to charter a vessel to take our goods. We have met some people at this conference who are going to see what can be done," he said.

Mariano Kelesi, a parliament member in the Solomon Islands, said, "Our cottage industry is well received, but we have problems finding overseas markets. We need local promotion because overseas people must know what the art looks like or they won't buy."

HE ALSO SAID there was a renewed interest in handicrafts by his people at this time, "In my country many people are going to museums to see how things were done. People are returning to basics . . . to revive lost customs."

Simeti Moala, director of economic development for Tokelau, a New Zealand territory, said, "Last year the economic department was started to try and find markets for our products . . . we already have buyers in Honolulu and we can keep up with their demands, so we are looking for other markets."

Tokelau, located nearly 3,000 miles north of New Zealand, has a population of 1,600.

Kolokai S. Hullerman, who's from Papua New Guinea, began her own business last year. "The idea started when people would ask me where I was from . . . so to show them, I brought functional and decorative art pieces from home."

Joe Chan, also from Papua New Guinea, is the managing director of PNG Art, which, according to his business card, is the biggest artifact shop in the country.

"There are over 600 different languages in my country and each language represents an area with its own art form," he said.

The trade exhibit, co-sponsored by the Pan Pacific Alliance for Trade and Development and the United States Agency for International Development, continues tonight from 7 to 10 p.m. and tomorrow from 6 to 9 p.m. in the hotel's C'est Si Bon Room. Admission is free.

The trade show is part of a six-day conference on U.S.-Pacific island trade through private-sector development.

Today's session at the East-West Center was to focus on developing products for the American market. Tomorrow, the delegates will meet at the hotel to discuss financing. The conference ends Friday with an open forum on strategies for the future.

Mr George Balazs
US Department of Commerce
National Oceanic & Atmospheric Administration
National Marine Fisheries Service F/SWC2
PO Box 3830
Honolulu
HAWAII 96812

Nukunonu
Tokelau
14/11/85.

Dear Balazs,

Good to hear that you receive my letter may be you receive the shells sometime afterward. Most of the shell I sent are of different types. I still got a lot of shells here in Tokelau. I think I only sent you the types you prefer could sell in the market and people like it much. This

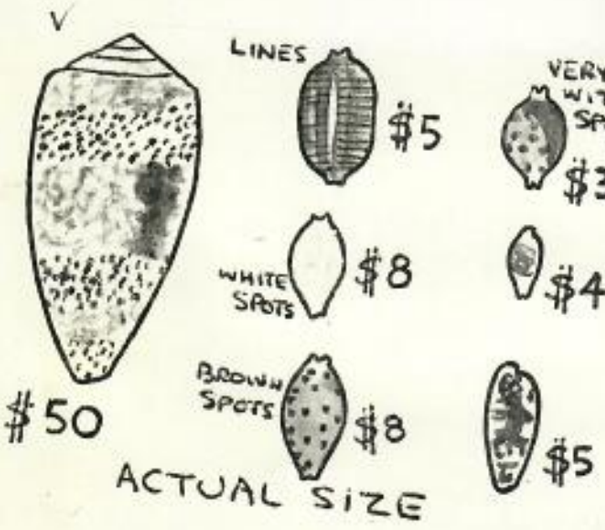
is to save time and postage. If someone interested in buying shell she/he can write direct to me, and I can sent the shells to them. Since my last letter to you we got another 3 turtles, one found ~~trap~~ on the beach lay eggs toward the lagoon side and the other 2 is a couple got at Tekamu.
I receive a letter from Mr. P.W. Glynn (Biologist) require information about the low tide.
Thanks for the Magazine.

Alofa lahi

Luciano Lopez.

Rangitahi College
P.O. Box 39
KRUPARA.
New Zealand.

1st June 1976



sent received any
am anxious to
sin for sea shells.
the beach are of
no value to a collector. However, there are
a few that can be found on the beaches
of Tokelau which are worth collecting and
I am sure some of your schoolboys would be
able to find for me. I have enclosed
pictures of these particular shells. The prices
that I have quoted are the price that I
am willing to pay for a shell found on the

beach in good condition. If they are damaged the value to me is considerably less.

Most of these shells are very small. My drawings are actual size. If you find a live one of these shells I will pay more money for it.

Please try to get someone interested in collecting for me. I can supply more pictures if you require them but I would like to receive some shells from you to know that you are interested in selling to me.

Yours sincerely

Norman B. Potter

Address N.B. POTTER

Please Salote could you mail this letter again.

Notice

Los Angeles Times
May 13, 1983

Pigs Adapt to Island Life by Swimming, Fishing

From Reuters

APIA, Western Samoa—Pigs may not fly, but in the Tokelau islands of the South Pacific they swim and fish.

On Fakaofo, one of the three sun-drenched atolls that make up Tokelau, 300 pigs fend for themselves in the sea, splashing in the shallow reef waters as they forage for food. They live on a diet of sea slugs, small mollusks and occasional fish.

"Sure they catch fish," said Semu Uili, who directs Tokelau's Agriculture and Fisheries Service from Apia, Western Samoa, 260 miles south of the island group administered by New Zealand.

"I've seen them grab fish up to about six inches in length. They spend most of their time out on the reef, wading around with their heads under the water. Some of them are pretty good swimmers."

No one knows where the pigs came from originally, but they are thought to be descendants of a Southeast Asian strain and have been on Fakaofo for generations.

In the absence of traditional food they adapted to their environment and turned to the sea.

Some pigs are reared by the islanders for slaughter on special occasions—feasts, weddings and funerals.

Manuele Palehau Leaone, 85, of Tokelau, is regarded by visiting academics and others as the leading authority on his country's history, music and customs. In recognition of his "distinguished service to his people over 60 years", Queen Elizabeth II honored him in this year's Birthday Honors with the Queen's Service Order for Community Service (QSO).

The order, exclusive to New Zealand (which administers the territory of Tokelau, about 480 km north of Western Samoa), was instituted by the Queen in 1975 to "recognise valuable voluntary service to the community and meritorious and faithful public service".

Palehau, as he is known in Tokelau, has been mayor of the country's capital island of Nukunono for 18 years. He is a wise old man around whom young and old gather to learn ancient songs, stories, dances and genealogies which he has learned and studied throughout his life.

His advice is constantly sought by Tokelauan leaders because of his knowledge of custom and tradition, and "the pride in them which he has built up so that young people will be able to do the same for the next generation".

According to the Office of Tokelau Affairs in Apia, "to many thousands of Tokelauans who have settled in New Zealand he has been the inspiration for that community's determination to preserve Tokelauan culture and the links with their home islands".

A recent visitor to Tokelau from New Zealand wanted to know why a certain wedding feast was being delayed, even though the bride and groom had already been seated and all indications were that the feast should begin. The simple reply was: "We're waiting for the 'Old Man'."

"Important events in Tokelau don't start without Palehau's presence and blessing," said the Tokelau Affairs Office. "He is the most appropriate recipient of the highest honor ever awarded a Tokelauan."

The three atolls of Tokelau are linked to the outside world only by ship, seaplane, and an antiquated telephone service. In a telephone call from Apia on June 10, the day Palehau's award was announced, it was learned that the population, jubilant at the news, were preparing a feast in celebration of it.

A walk through Nukunono: Manuele Palehau, Sister Juliana and friends. He's the "wise old man, around whom young and old gather".

That morning, the Council of elders, the country's local government, had held a special morning tea for the occasion. A public holiday was planned for the following week.

Main diet on Tokelau is fish and root crops. Coconut meat is eaten as a substitute.

Tokelau relies heavily on New Zealand's assistance. For the 1982-83 fiscal year the grant was $NZ2.1 million, according to Tony Browne, official secretary of the Office of Tokelau Affairs in Apia. — *Sano Malifa in Apia.*

Francis Hong Tiy has been named divisional manager, shipping and travel for Burns Philp (SS) Co. Ltd.

Mr Hong Tiy replaced **Campbell Swift,** who has been transferred to the Burns Philp head office in Sydney where he has been appointed line manager for the company's new inter-regional shipping service.

Francis Hong Tiy

Before joining the company, Mr Hong Tiy was commercial manager/personnel assistant to the general manager of Pacific Forum Line.

He was involved in regional shipping and transport with the South Pacific Bureau for Economic Co-operation (SPEC) Where he led a team associated with the feasibility study which resulted in the establishment of the PFL.

Mr Hong Tiy is a member of the Fiji Visitors Bureau and the Marine Board.

The new regional shipping company to be headed by Mr Swift is known as the South-West Pacific Container Line (SPCL) and will service ports between American Samoa and Papua New Guinea with two container ships. It began operation in July.

Prince **Edward,** youngest son of Her Majesty Queen **Elizabeth II,** in June visited Western Samoa, Cook Islands, Niue, Tonga, and Fiji in what was described as a "recreational and educational" visit designed to provide His Highness "with further background knowledge of the South Pacific".

He was housemaster at New Zealand's Wanganui collegiate for the last term of 1982 and first term of 1983. He is fourth in line to the British throne after Prince **Charles,** Prince **William** (the son of Prince Charles and Princess **Diana)** and Prince **Andrew.**

Victor Carell writes from Levuka: Warm sunlight bathed the old Fiji capital of Levuka on the day Prince Edward visited it during the nine days he spent in Fiji. Greeted by the Commissioner Eastern, **Nelson Delailomaloma,** the prince arrived at Bureta airport early in the morning and was driven to the memorial cession stones at Natovi. The stones are where the chiefs of Fiji signed the Deed of Cession in 1874, giving the islands of Fiji to Queen **Victoria.** One stone marks the event itself, another (which the Prince of Wales unveiled in 1970) celebrates Fiji independence and a third commemorates the first century of cession.

The young prince was welcomed at the old Queen Victoria Memorial Hall where he had morning tea with the mayor, town councillors and other citizens of Levuka. Prince Edward inspected the Levuka Community Centre, a thriving museum, library, public hall and sports complex established in what was once the Levuka building of the Morris Hedstrom company. In the community centre gymnasium the prince watched

Received
8-29-83

Dear Dr. Balaz,

I wish to confirm the matter of unusually low tides as in Tokelau as reported by Luciano. However there is one correction that should be mentioned here. In your letter you send that the tides went below the usual level by 5-6 feet. That was not the case. I think 6-8 inches would be more correct.

The unusual tides was

reported from all the islands and according to the old people they could not recall such an incidence in the past and they were equally perplexed.

In June this year I went to Noumea to attend a meeting there and I discussed this matter with the scientists there. They explained that it was due to a change in direction of a major ocean current, leading to a change in temperature. A such wind patterns change and so does rain movement. How correct is this I wish to hear from you if

have any theories supporting it or otherwise.

About 3-4 weeks ago things started to return to normal. Nevertheless I think it is going to take a while yet before normal conditions are restored.

With best regards,

Sincerely yours,

Sam Li

21/7/83

JOHNSTON 946-7751

Nukunonu
Tokelau Is.
16-5-83.

Dear Balaz.

I have received everything you've send and I was very pleased with the photographs they are really beautiful.
The magazines are very useful to our social science programme.
This year in Tokelau we had a very low tide I think the sea drop down about 5-6 feet. The sea gone since February and never return. Millions of sea animals dead fish, clams, corals, etc..
We have picked up hundreds of sea shells.
Do you have an idea why such thing happened we are very worry about our reef and the fish. Fish usually cross over the reef to the Ocean to breed and return to the lagoon. Fish can't go out and they just stuck and, tired dead on the reef.
I have a lot of good shells to sell out, please could you find out some places their in Hawaii who interest to buy shell from Tokelau. I hope it doesn't cause you to much trouble.

Balaz. could you find out information of how to preserve fish and dry so that it won't smell, at this time I have have seen a lot of nice fish dead and different types of eels. and I want to preserve them because this is the first time I've seen them. So please could you find out for me. I want to preserve the fish, and not to change its colour do you think is possible.

Anything you want from this end please write.

Thank you also, for the film.

Tofa Alofa Lahi

Luciano Perez.


1c
TOKELAU ISLANDS
BOW-DRILLING SEA SHELL
Tokelau 22s
Mr George Balazs
9- National Marine Fishers Service
PO Box 3830
Honolulu
Hawaii 96812
BY AIR MAIL
PAR AVION


SENDER: Sinilua. Soseme
Fakaafo Atoll
TOKELAU

9.3.83
FAKAOFO
TOKELAU

Dear George,

On behalf of my mother, I would like to thank you for the letter and magazine but mostly for the thoughts that were with it. It was a great pleasure receiving it.

The sea-turtle is fine and it's very big because of the amount of food he (George) eats. Both Mum and Dad are very pleased with the way things have turned out because they didn't expect to hear from you ever again.

I'm sorry but we couldn't produce any sort of present in a short time for you, but Mum has promised to send some sort of thing in the near future. Mum's really showing off because she's in the front-cover, it's the first time her picture has ever hit front pages or even covers.

I hope you don't think this is rude, but my elder sister Fano reckons, she had a photo taken and she was wondering if she could possibly have a copy.

Well that's about all there is to say, but my family very much likes to hear from you sometimes and we would be very pleased

to see you again. And by the way the name is not Sinva, its Siniva.
Regards to you from my family

Lots of Love
Tiresa

remember I wrote on behalf of my mother, I happen to be one of her many children.

P.S. May God be with you, and may he guide you with your job, the family too wishes you the best with your career.

1982 WWF-

Tropical Forests

Minimum Critical Size of Ecosystems
Project Directors: Dr. Thomas E. Lovejoy, WWF-US; Herbert O.R. Schubart, National Institute for Amazon Research (INPA); Field Director: Dr. Richard O. Bierregaard, Jr., WWF-US $111,441

Conservation of Floodplain Forests, Amazonia
Project Director: Dr. Rolf Singer, Field Museum of Natural History, Chicago $3,200

Conservation and Ethnobotany in Tropical South America
Project Director: Mark J. Plotkin, Harvard Botanical Museum $27,640

Development of the Tropical Forests and Primates Program
Project Director: WWF-International/IUCN $40,000

Preparation of a Strategy for a Systematic Botanical Inventory of the Tropical Forests of the World
Project Director: Dr. Ghillean Prance, New York Botanical Garden $70,000

Biological Inventory, Paraguay
Project Director: Hilario Moreno Ortiz, Chief of Forest Management, National Parks and Wildlife, Paraguay $33,026

Ecology of a Tropical Forest Tree Community, Panama
Project Director: Dr. Stephen Hubbell, University of Iowa $12,500

Amazon Fishes and Floodplain Forests, Brazil
Project Director: Dr. Michael Goulding, National Institute for Amazon Research (INPA) $14,550

Finca la Selva Biological Station, Costa Rica
Project Director: Organization for Tropical Studies, Inc. (O.T.S.) $30,000

Lacandon Rain Forest, Mexico
Project Directors: Bruce Rich and Robert Wasserstrom, Natural Resources Defense Council $4,396

Tropical Forest Symposium
Grant Recipient: Almirante Ibsen, Fundacao Brasiliero para a Conservacao da Natureza. $1,500

Tropical Biology Conference, American Institute of Biological Sciences, Pennsylvania State University
Grant Recipients: Alvaro Ugalde, Director of National Parks, Costa Rica; Dr. Judy M. Rankin, INPA $647

Tropical Rain Forest Book
Project Director: Catherine Caufield, *New Scientist*, London $1,500

Marine Ecosystems

Abundance, Distribution and Movements of the Olive Ridley Sea Turtle, Costa Rica
Project Directors: Stephen S. Cornelius and Dr. Douglas C. Robinson, University of Costa Rica $15,000

Additional funding is being provided by the U.S. Fish and Wildlife Service.

Conservation of Sea Turtles, Mexico
Project Director: Kim Cliffton $52,369

The U.S. Fish and Wildlife Service has contributed $25,000 of this and the Center for Environmental Education $10,000.

Operacion Tortuga Education Project, Mexico
Project Director: Pro Natura $5,000

Conservation of Sea Turtles, Tokelau Islands
Project Director: Dr. George Balazs, University of Hawaii $785

Tagging of Sea Turtles, Brazil
Project Director: Department of National Parks and Equivalent Reserves, Brazil (IBDF) $195

Conservation of Sea Turtles, Jupiter Island, Florida
Project Director: Dr. Frank Lund, Isaak Walton League of America $1,000

Survey of Nesting Sea Turtles, Florida
Project Director: Dr. Llewellyn Ehrhart, University of Central Florida $5,000

Abundance and Diversity of Sea Turtles, Indian River, Florida
Project Director: Dr. Llewellyn Ehrhart, University of Central Florida $5,000

Ecology of the North Atlantic Right Whale, Bay of Fundy
Project Directors: Dr. John H. Prescott and Scott Kraus, New England Aquarium $10,000

WWF-US 1982 Financi

• Revenue up 46% from 1981 to $5.7

April 8, 1983

Dr. F. R. Fosberg
Editor, Atoll Research Bulletin
Smithsonian Institution
Washington, D. C. 20560

Dear Dr. Fosberg:

Thank you very much for your recent letter answering my questions about observations of green turtles nesting in the Marshall Islands. I appreciate the clarification you provided, and will try to incorporate this information in a future paper dealing with the subject. Yes, if you come across any photos of green turtles taken in the Marshalls I would certainly like to see them.

I want to take this opportunity to send you a report I authored last year concerning sea turtles and their usage in Tokelau. When your time permits, I would like to know if it might be a suitable sort of thing for publication in Atoll Research Bulletin. Of course, I realize that parts would have to be reworded to transpose it from a "report" to "paper" suitable for publication. If you wish, you may keep this copy for your files, in the event that it doesn't end up in the Bulletin.

Best regards.

Sincerely,

GEORGE H. BALAZS
Assistant Marine Biologist

GHB:ec

Enclosure

24 lines shot
1/11/83

Nukunonu
Tokelau.
3-11-82.

Dear Balazs,

Thank you very much for the beautiful magazine it is really a new one to us, at school. The fishing ~~maga~~ newspaper was really my favourite as fishing is my favourite hobby.

I also received the larger lures you have send previously. I prefer this is the type I want most.

Please if you could send me some more I really want that type, especially the crimson red, and navy blue.

I want a dozen each of the 2 colours, because it seems cheap to me if the price still 45c each. It is a good idea if you convert to N.Z dollars and much ~~cheap~~ easier for me.

I have send back your tape and I manage to record 2 tuitha's inati the first one is not as good I had trouble on my machine I also put in some of our traditional dances I hope you like to listen to it.

If you want me to do some more recording I'ama please to do it for you.

Alofa lahi from my family

Luciano Juliana Peggy

P.T.O.

6th Jan '83.
Apia
W. Samoa.

Dear Mr George Balay, HAPPY NEW YEAR!.

Thanks very much for the colored books + crayons that you've sent for my kids. My old son really like coloring pictures.

I'm writing from Apia, I + husband came here as arrived from Tokelau on the 24th of December. Just to spent the Christmas vacation here. We had a good time here. So we will leave next week for Tokelau, on the January 15th '83.

George this pen is for your dear wife. I hope she'll like it, eh!.

Best regards to your wife + son.

May God bless you.

Love

Miss Tarata Piaopi

Nukunonu
Tokelau
7 March 1983.

Dear Balazs,

How are you today?

I have received your note and everything you have send previously the magazines are very useful for the school and we are pleased to have them in our library.

The fishing news of Hawaii are very interesting with lots of informations which help me for my fishing.

I also received the plastic octopus you've send and I was very please with it. I thank you, very much for that Balazs. I tried them out weeks ago and very succesful They are very good for bonito but Torado alway spoil it with its hard mouth.

I am sorry about the film and the photo I took didn't turn out. I believe I had a camera trouble. Sometimes the film stuck and hard to turn for the next shot. I sometimes give a strong push and spoil the film. in the counter end, open up the camera the film still half way through.

Anyway I manage to take more photos for you. A female turtle was got on

the Island of Takelau laying eggs on the beach
The guys took it to the village.
I hope the film o.k. I manage to take the photo of killing the turtle with an axe, open the, stomach, share meat, remove the flippers cutting and sharing.

In the month of January 1983 some fisherman reported they saw one of the biggest sea turtle near the Island of Fakanava. They can't tell wether is a male or female. Two weeks after a report on the same turtle near TEKAMUI (see map).

In your letter you have mention John Thompson He's a radio technician. He came in to installe some new equipments in our radio station. The instruments is to measure the speed of the wind and the sunshine.

Balazs do you think of coming back to Takelau sometimes?

Looking forward to hear from you soon.

Alofa lahi atu to your family.

Luciano Perez.

UNIVERSITY OF HAWAII
Hawaii Institute of Marine Biology
Coconut Island-P. O. Box 1346-Kaneohe, Hawaii 96744-1346

June 1, 1982

Mr. Harry Sperling
Regional Fisheries Coordinator
Office of the Resident Representative
for the South Pacific
United Nations Development Programme
Private Mail Bag
Suva, Fiji

Dear Mr. Sperling:

Thank you for sending me a copy of the response on my Tokelau report that you received from the Project Operations Officer at FAO. This was indeed disappointing to me because it shows that the officer has little, if any, faith in the "statistics" that can be obtained from elder fishermen native to our Pacific Islands. My view is exactly the opposite. With careful selection of the people to be interviewed, I am convinced that completely reliable and important management data can be obtained. Furthermore, it can be obtained in a fraction of the time that it would take to obtain the same information by other more classical means of research. As I mentioned earlier, work of this sort should be undertaken in partnership and harmony with the native people that are culturally linked to the animals/ecosystems under investigation. Since it is their resources, certainly we have an obligation to go directly to them for information and viewpoints.

Thank you for bring the turtle conference to my attention. I was, in fact, aware of this gathering and hope to attend. The title is "Western Atlantic Turtle Symposium" and it will be held in Costa Rica in July of 1983. The focus will be on the Caribbean countries. I understand that FAO is somehow involved. Possibly the Project Operations Officer will be in attendance and I will have the opportunity to give him a more realistic perspective of marine biological matters here in the Pacific.

Best regards, and again thank you for your efforts.

Sincerely,

George H. Balazs
Assistant Marine Biologist

mk

Fakaofo
Tokelau
20th Oct '82.

Dear George,

Hello there!

I would like to say thanks you very much indeed for the photographs that you sent me. Just got it now. Thanks alot for the cards too.

My husband & children really like it very much.

I can't remember the number of turtles been caught this year. But there was one been caught last September, can't remember whether a male or female one.

George tell your wife that I'm going to send a Tokelau fan for her.

Send them your wife + son our best regards.

Love Always

Mrs I. Siaosi

G. Balaya

COMMENTS-- TOKELAU TURTLE REPORT

page 4, ln 5..... Origin of info that Hll and Sydney are uninhabited. In the 1950's we stopped off at both islands and ~~hm~~ there were quite a number of Gilbertese on Hull and Sydney isalnds.

8-0-2----- Is pandanus a food crop?

October 22, 1982

Ms. Nancy H. Hammond
Project Administrator
World Wildlife Fund - U.S.
1601 Connecticut Avenue, N.W.
Washington, D.C. 20009

Dear Nancy:

Many thanks for your letter of September 28th answering my inquiry about possible funding for sea turtle conservation studies at Bikar, in the Marshall Islands. As I see it now, the budget would not exceed $5,000. However, we are currently in the process of making inquiries about transportation by vessel within the Marshalls in order to accurately estimate costs. I will keep you informed as this progresses.

Since my Tokelau turtle report was sent to the islands in March there has only been one general council meeting, and that only occurred a few weeks ago. I am sure that my report was discussed at the meeting, but as yet do not know the outcome. As you might guess, all issues move very slowly within the Pacific islands. You may be interested to learn, however, that over the past year I have received numerous letters from people I met in Tokelau thanking me for photographs and educational materials that I distributed. A copy of one such letter is enclosed for your information. It is my thought that the follow-up correspondence and activities on a trip such as this are equally important as the study visit itself. Pacific islanders have seen many "whirl-wind" consultants for all sorts of disciplines--they come through once, take what they can in traditional knowledge, and are never heard from again. I resolved a long time ago never to work that way.

The enclosed copy of the magazine cover was just a cover photo - a story on Tokelau did not appear in the issue.

Best regards.

Sincerely,

GEORGE H. BALAZS
Assistant Marine Biologist

GHB:ec
Encls.

John Thompson
Nukunonu, Tokelau

entitled to an allotment of eight and one quarter acres and a house site in a village. There are a small number of copra plantations leased by Europeans and churches.

Over 90 per cent of the people are concerned with farming, mainly on their own plots. Yams, taro, kumaras, manioc, bananas, breadfruit, pawpaw, kava, paper mulberry (for tapa cloth), and vegetables are grown in rotation. After two or three years a plot is allowed to revert to "bush fallow". Coconuts are widespread though not in the higher areas of Eua, Vavau and the volcanic islands. About an eighth to a quarter of coconuts are used for food. The remainder is made into copra for export.

Exports:	**1961**	**1963**
Copra	17,411 tons	9,900 tons
Bananas	179,652 cases	92,930 cases

Total Value (1963) £A958,876

Industry: There is no industry apart from the Government sawmill on Eua Island, a seasonal fruit pulp processing plant in Vavau, and a small coconut dessicating plant.

Towns: The capital, Nukualofa (15,000), on Tongatapu, is the chief port and town and is the headquarters of trading firms, churches, and of government departments.

Neiafu (5,000), in Vavau, has an excellent sheltered harbour.

Communications: Tonga is fairly isolated. There is a monthly steamer service on the New Zealand, Fiji, Tonga, Niue, Samoa run and a monthly service by Government vessels between Tonga and Fiji. Copra ships and other ships call occasionally. Fiji Airways run weekly flights from Fiji. Internally, inter-island communication is carried out by Government vessels and by cutters. A local radio station began operations in 1961.

Special Features:

1. Niuafo'ou is "Tin Can Island" where, because of poor harbour facilities, a swimmer carried mail in a sealed "tin can" out to steamers. The island has had several volcanic eruptions and is now resettled after a period of 15 years.
2. Falcon Island, or "Jack in a Box" Island, an undersea volcano, appears above sea level from time to time.
3. Tongans in small whaleboats catch whales for the sale of meat during the whale migrations between July and October.
4. Vavau Island is infested with the rhinoceros bettle, a serious pest of coconuts.
5. The Ha'amonga trilithon and large tombs at Mu'a are huge stone structures built in ancient times.
6. Tonga is one of the few countries associated with the British Commonwealth with a firmly established monarchy and in this respect is unique in the Pacific.

TOKELAU ISLANDS

(excluding American Swains Island)

See Map Page 27

Size and Physical Nature: Area 4 sq. miles. Consists of three atolls, which encircle lagoons: Nukunono, 1,350 acres; Fakaofo, 650 acres; Atafu, 500 acres.

The reef islets on these atolls vary in length from 100 yards to four miles and are ten to 15 feet above sea level.

Government: The three atolls form a New Zealand dependency and the people are New

Zealand citizens. The Administrator is the New Zealand High Commissioner in Western Samoa. Local government is carried out on each atoll by an elected *Faipule* who is also magistrate. He is assisted by a village mayor, a village clerk, and other local officers.

Population and Settlement: The Tokelaus are a border area between Polynesia and Micronesia. The people are Polynesian and have some similarity with Samoans and an atoll culture similar to that of the Northern Cooks.

Population

Date			*Total*
1956			1,618
1963	Atafu	539	
	Fakaofo	807	
	Nukunono	553	1,899

Only two Europeans, both missionaries, live in the group.
Density of Population 475 per sq. mile.

Settlement is confined to one islet on Nukunono and on Atafu. On Fakaofo, overcrowding has resulted in settling about 40 families on the neighbouring islet of Fenuafala. In all cases villages are near a reef passage which gives access to vessels and ocean fishing.

Houses are built of pandanus timber with walls and roofs of plaited pandanus leaves. The houses have gabled roofs similar to those in the Gilbert Islands. Water is provided from concrete rain tanks in the villages.

Government and mission schools provide education for almost 100 per cent of the children.

Climate and Vegetation:

Average annual rainfall	115"
Highest annual rainfall	177"
Lowest annual rainfall	87"
Average temperature (January)	82°F
Average temperature (July)	82°F

The islands lie in the zone of the S.E. trades but from November to February north-east and northerly winds predominate.

Soils are almost entirely coral sand, with coconuts and pandanus the main vegetation.

Land Tenure and Farming: Land is held by the heads of families and may be sold to other families or to the Crown but not to foreigners. With the increase in population and the subdivision of families, land holdings become smaller.

There is no farming in the accepted sense. Atolls have little soil and apart from coconuts which grow out of the coral rock, the only food plants are a few breadfruit trees, pandanus, bananas and paw paws grown in man-made compost pits, supplemented by fish, fowls, and pigs, and imported flour and sugar.

Exports: Copra is the staple export.

Date	*Tons*	*Value*
1961	155	£2,981
1963–4	44	£1,138

Postage stamps and plaited ware are a small source of income.

Communications: There is no regular shipping or air transport. Chartered ships call to trade and to transport officials. Occasional flying-boats visit the group for medical and other purposes. Local radio sets receive broadcasts from Western Samoa and each atoll has a radio station.

Special Features:

1. Fish and coconuts form almost entirely the diet of the people.
2. The Tokelauans were recently offered the choice of amalgamation with the Cook Islands or Western Samoa or complete independence, but chose to remain New Zealand citizens.
3 Due to overpopulation some Tokelauans are being resettled in New Zealand.

WORLD WILDLIFE FUND-U.S.

1601 CONNECTICUT AVENUE, N.W.
WASHINGTON, D.C. 20009
CABLE: PANDAFUND TELEX: 64505
TELEPHONE: (202) 387-0800

September 28, 1982

Dr. George H. Balazs
Assistant Marine Biology
University of Hawaii at
Manoa
Hawaii Institute of Marine
Biology
P.O. Box 1346 Coconut Island,
Kaneohe, Hawaii 96744

Dear George:

Thanks for your letter of 20 September.

Although we have not been particularly active in the Pacific region we do fund work there from time to time. We would be happy to consider a proposal along the lines you suggest. Since the work would begin next September, we would want to see the proposal well in advance of that to allow sufficient time for outside review. If the budget would not exceed $5,000 the proposal would not require Board approval. If that is the case, I suggest you plan on getting the proposal in by June of 1983. If the budget exceeds $5,000 we would have to consider it at our June 1983 Board meeting and in that case should have the proposal by the end of March.

Let me know how you plan to proceed.

Best regards,

Nancy

Nancy E. Hammond
Project Administrator

NEH/fkr

P.S. Has there been any follow-up on the recommendations you made in your Tokelau report?

George. H. Balazs
Deputy Chairman

Atafu Atoll
Tokelau Islands
12th August.

Dear Sir

I'm very happy as I have this opportunity to thank you very much for your letter concerning your study of turtle in our Atoll Atafu.
We hope very much your visit here will help the Tokelau especially Atafu in giving us information through the office of Tokelau affairs in Apia

Takes ~~that~~ thanks for the picture of a girl which you sent. That girl's name Dorina Peter She is my youngest daughter she's about eleven years. I was very proud when I saw her in a picture and the purpose your purpose to do to use to make a cover, and also Dorina was very proud of the picture.

God will be upon you always

Send you and family our best regards.

Yours sincerely

George. H. Balazs
Research Scientist

Atafu Atoll
Tokelau Islands
12th August.

Dear Sir

I am very happy as I have this opportunity to thank you very much for your letter concerning your study of turtle in our Atoll Atafu.
We hope very much your visit here will help the Tokelau especially Atafu in giving us information through the office of Tokelau affairs in Apia

Tokelau thanks for the picture of a girl which you sent. That girls name Josina Peter
She is my youngest daughter she's about eleven years. I was very proud when I saw her in a picture and the purpose your suppose to do it use to make a cover, and also Josina was very proud of the picture.
God will be upon you always

Send you and family our best regards.

Sincerely

OCEANIA MARIST PROVINCE

7 Lavena Road
P.O. Box 1198
Suva, Fiji.

Tel. 383804

January 18th, 1982

Mr. George H. Balazs,
Hawaii Institute of Marine Biology,
P.O. Box 1346,
Kaneohe, HAWAII 96744.

Dear Sir:

In response to your letter of 15th December asking for the mailing address of Father Joseph Topeto Filipo, I suggest that you send his mail to : FATHER JOSEPH FILIPO,
Catholic Mission,
P.O. Box 183,
Apia, WESTERN SAMOA.

Yours sincerely,

Robin W. Leamy, S.M.
PROVINCIAL.

15/6/82
FALEALOFA
TOKL.

DEAREST FREIND GEORGE

Thank you for sending me a chart of turtle. Im very happy when I that from you. I hope you're and the family are well. But myself and the family are very well too. Im here were very busy playing cricket on the Queens Birthday. We divided in two parts. Samoan and New Zealand. We had beautiful dances. How's the job getting on? And I would like to let you know that. Can I have fishing hooks from you there? No 11 and No 12. And thats all I want! Okay if you like any Adelaun handicraft and you can write to me. Ask your wife for anything she like from Adelaun. She can tell my wife too. And thats all. But hope to hear from you Soon. Best Regards for you Boys

Malo. Malaya.

Fenuafala,
Fakaofo.
Tokelau.
20/8/82.

Dear Mr. G. Balazs,

I hope you recognize or know who am I.

Maybe you would remember me when you'll have a closer look inside your diary, 'cas I'm sure you put my name inside.

I'm Janets Siaosi (the Fenuafala doctor's daughter) I met you on the street, then I took you down to my kitchen (umu) near the Hospital where my Mom gave you leis and shell coconut, and you took 2 photos of myself & kids near the nurses home.

I hope you remember me.

I'm working as a typist for the school, and I'm very happy

If you supply us with any kind of pictures about turtles or what so ever.

I'm glad to write & received letters from you & wife & sons.

Hope to hear from you soon.

Best regards for your wife & son.

Thanks

Siaosi

P.S. Just got our mail, and I found out some of Moana's big 2 Envelopes, but unluckily shes has left on the last boat for Apia. And I'm keeping them here until she'll be back.

Thanks.

Nets Siaosi

P.S.

I just want to remind you or ask you if could send me my photo that you took. Cos I really want to have a closer look at my big tummy. Ha! Ha!

Thanks

Nets.

Isiaoi (Mrs) .

Fakaofo

Tokelau.

Nukunonu
Tokelau
2-8-82.
August

Dear Balazs

Perhaps you are well and also you family. Just a short note to say Hullo and how everything's their.

Perhaps you receive the money I send you few months ago for the cost of fishing lures.

I still keeping your cassette and waiting until we had turtles.

May the season is coming soon. Anything else you want to put in the tape let me know and Ill do it for you.

Wish you all the best

Alofa lahi

Luciano Perez

August 19, 1982

Dr. J. C. Yaldwyn
National Museum of New Zealand
Wellington, New Zealand

Dear Dr. Yaldwyn:

In your excellent paper on Tokelau land crabs which appeared in Atoll Research Bulletin, you referenced a repart by A. Wodzicki (1968a) pertaining to sea turtles. I have been unable to obtain a copy of this report here in Hawaii, and a request to Dr. Wodzicki has not been answered. If it wouldn't be too difficult for you to locate, would you please send me a copy of page 67 of the report, and any other pages that refer to sea turtles.

Thank you for any assistance you can offer.

Sincerely,

George H. Balazs
Assistant Marine Biologist

GHB:md

The workmanship is not as good as my little turtle - different maker - but I thought you might like it anyway - being a turtle nut. Thank John for it - he arranged the whole thing - cost us the labour of chopping down 3 palm trees with his chainsaw!

Fakaofo
Tokelau Is.
4th March. 1982

Dear George

- Sorry about the pen; they always run & hide whenever I want to write a letter. Herewith, then, one epistle, hastily penned amidst the confusion of packing. Many thanks for yours received last week off the plane - was super to hear from you again - didn't really expect to - & I was especially delighted with the post cards - one set each to junior & senior areas of the school & one set for us to take home to a very good friend of ours who happens to be a turtle fan. Quite put him into 7th heaven, when he acquired a little "red-ear" fresh water turtle a few years ago. Owning a turtle - any kind of turtle had been a life long ambition.

While on the subject of turtles — checked up. My one turtle was Semmi's pair. It was only one caught on the ocean side of Lalo, which is the long island directly opp. Fenuafala (near where the Ai Sokula is wrecked.) The nest was just under the trees. Unable to ascertain whether she was caught in the act of laying or not, but about 100 eggs recovered. Since your first letter, no more turtles, but one batch of eggs taken about a fortnight ago (that's 2 weeks in American terminology) 200 or so eggs from under the trees on the

long island next to Lalo called Mataqi. (From Fennafala it all looks like one, if you remember).

As is the custom, the eggs were divided between the elders & the family of those who found them. They are really relished as a delicacy by old & sick people. Only the eggs were taken, they were too late to get the turtle - it had swum away.

By the way, did you know that a male & female turtle (like the ones caught when you were here) are honoured by the title of "ulugafonu" - akin to a married man & his wife who are often called an "ulugali" (a term of respect). - an indication of the respect the locals have for the animals

If you want more information after we go, you could try dropping a line to the Education Officer who is coming here in May - through until September. He's a terrific person & I know would be happy to send you information should you request it. His name is Brian Healey. Usual address - we'll tell him about you.

By the way - sorry about the scribble, yes, we are in a bit of a turmoil - suitcases & cardboard boxes everywhere. Dreadful trying to persuade mother in law that we don't really need to take 10 or 12 mo sleeping mats back with us. Dear thing, she can't imagine life without them

and I was presented with 12 !! fans from the school teachers the other day. Beautifully made, but all woven with those revoltingly bright aniline dyes. Don't know what to do with them. Stick them in my gardening shed at home perhaps? They'd brighten up the flowerpots lives at least! The tiger shark's teeth (remember, you identified the jawbone for John!) have been packed up - someone wants to boast to his mates about his fishing expertise!

Please do send a couple more turtle buttons - yes, the old ones are getting a bit rusty.

Here's our address. You can stick it in your address book, for what it's worth.

John & Elizabeth Pereira
19 Hessey St
Masterton
NEW ZEALAND

Short & sweet. No ph. no. yet. We'll have to wait till we get back & pay the reconnect

Must away. The old hurricane lamp isn't too good for the eyes.

Love to your better half and your son.

Best regards,

John & Elizabeth

Pereira.

P.S: I promised I'd send you one of these little turtles because you admired mine so much, (you probably don't remember). Here it is then, better late than never. Hope you like the packaging. Not exactly commercial, but it is original.

E.

A Letter.
OR: The Epistle
According
to
Elizabeth & John

TELEGRAMS: TOKALANI APIA
TELEPHONE: 20 822 20 823

P.O. BOX 865 APIA
WESTERN SAMOA

18/2/4

OFIHA O NA MEA TAU TOKELAU
Office for Tokelau Affairs

31 August 1982

Dr A Balaz,
U.S.Dept. of Commerce,
National Marines Fisheries Services,
P O Box 3830,
HONOLULU, HAWAII 96812

Dear George,

I wish to acknowledge and thank you for the receipt of the "Pacific" magazine you sent. The cover photo certainly looks good; she should be pleased with it.

Yours sincerely,

(S Uili)
for : Official Secretary

SU/ea

TELEGRAMS: TOKALANI APIA
TELEPHONE: 20 822 20 823

P.O. BOX 865 APIA
WESTERN SAMOA

18/2/4

OFIHA O NA MEA TAU TOKELAU
Office for Tokelau Affairs

17th August 1982

Dr G.Balaz,
Hawaii Institute of Marine Biology,
P O Box 1346,
Kaneohe,
HAWAII 96744.

Dear George,

I wish to acknowledge your letter of 9 August 1982 and as for your query concerning Miss Tohina Patea, she is indeed Amusia's daughter.

As for the offer to join you in your tagging expedition I really do appreciate it but in view of my more urgent commitments I do not think I can make myself available. Wishing you all the best in your coming adventure.

Yours sincerely,

(S Uili)
for : Official Secretary

SU/ea

August 9, 1982

Mr. Semu Vili
Office for Tokelau Affairs
P. O. Box 865
Apia, Western Samoa

Dear Semu:

Thanks very much for sending me the name of the girl that appeared in my photo used on Pacific Magazine. Is Tohina the daughter of Amusia Patea, the Faipule of Atafu? As requested, I am sending you (under separate cover) a copy of the magazine. I will also send a copy directly to Tohina. I should point out, however, that this magazine issue does not contain an article about Tokelau, it just features the cover photo that I took at Atafu.

Semu, on 27 September I will be flying to Pago Pago to take a chartered boat out to uninhabited Rose Atoll. I will stay at Rose for about 10 days with several other people censusing and tagging green turtles that come ashore to nest. Would you be interested in joining me on this research trip? I certainly would welcome you. Your only expenses would be air fare to Pago, and hotel accommodations before and after the boat trip to Rose. I will make all other arrangements. The boat we will be using is the American Samoa government's new fishing boat, which is about 65 feet in length. If you are interested in this offer, please let me know in writing immediately and I will make the necessary contacts to have your space reserved.

Sincerely,

George H. Balazs
Assistant Marine Biologist

GHB:md

TELEGRAMS: TOKALAHI APIA
TELEPHONE: 20822 20823

P.O. BOX 865 APIA
WESTERN SAMOA

OFIHA O NA MEA TAU TOKELAU
Office for Tokelau Affairs

20 July 1982

Dr G.Balazs,
P O Box 3830,
HONOLULU, HAWAII 96812

Dear George,

The girl of interest whose photo you sent over for identification is Miss Tohina Amusia. If you do not mind I would appreciate to receive a copy of the magazine.

Also thanks very much for the paper on "Australian Fisheries".

Yours sincerely,

(S Uili)
for: Official Secretary

SU/ea

Nukunonu
Tokelau.
16-6-82.

Dear George,

Just a quick note to reply you because the plane is only stay for ½ hours

Thanks very much for the plastic lure I like it very much.

I send NZ$20. To meet the cost of the lure.

I am very please If you could sent some next time if the bigger size available.

I write better next time

Alowha lahi

Luciano Perez.

from JOHN THOMPSON BOX 722 WELLINGTON 1, NZ

J00031 FAKAOFO, TOKELAU IS LAT. 09 23S LONG. 171 15W HT. 3 M.

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR
RAINFALL, MILLIMETRES														
HIGHEST MONTHLY/ANNUAL TOTAL	1968-1975	693	366	320	251	282	362	470	215	213	395	357	467	3515
AVERAGE	1968-1975	469	202	240	146	175	171	173	149	159	242	206	311	2643
LOWEST MONTHLY/ANNUAL TOTAL	1968-1975	196	105	185	44	42	40	47	52	36	175	77	166	1631
MAXIMUM 1-DAY RAINFALL MM.	1968-1971	91	132	87	77	149	103	95	48	48	146	156	77	156
TEMPERATURE, DEGREES CELSIUS														
HIGHEST MAXIMUM	1969-1975	34.3	33.9	34.4	34.9	34.4	33.2	33.6	33.7	33.9	34.2	34.6	34.7	34.9
MEAN MONTHLY/ANNUAL MAXIMUM	1969-1975	32.9	33.3	33.3	33.5	33.3	32.6	32.7	32.4	32.9	32.9	33.3	33.4	33.8
MEAN DAILY MAXIMUM	1969-1975	30.6	31.1	31.2	31.4	30.8	30.3	29.9	29.9	30.3	30.8	31.0	31.0	30.7
AVERAGE	1969-1975	27.9	28.2	28.4	28.6	28.3	28.0	27.7	27.6	27.9	28.0	28.3	28.2	28.1
MEAN DAILY MINIMUM	1969-1975	25.2	25.2	25.6	25.9	25.7	25.8	25.4	25.3	25.4	25.2	25.6	25.3	25.5
MEAN MONTHLY/ANNUAL MINIMUM	1969-1975	22.8	23.1	23.3	23.8	23.6	23.9	23.9	23.5	23.2	23.1	23.6	23.3	21.9
LOWEST MINIMUM	1969-1975	20.4	22.6	21.7	22.9	22.7	22.9	22.8	22.7	22.6	21.9	23.2	22.4	20.4
MEAN DAILY RANGE	1969-1975	5.4	5.9	5.6	5.5	5.1	4.5	4.5	4.6	4.9	5.6	5.4	5.7	5.2
VAPOUR PRESSURE (MBS)														
AVERAGE AT A.M.	1971-1975	29.5	29.4	29.9	30.3	30.0	29.4	28.4	28.8	28.9	29.0	28.9	29.8	29.4

Observation Time:
0700 hrs Local Time

J00030 NUKUNONO, TOKELAU IS

LAT. 09 12S LONG. 171 55W HT. 3 M.

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR
RAINFALL. MILLIMETRES														
HIGHEST MONTHLY/ANNUAL TOTAL	1970-1975	828	611	397	233	284	436	409	248	225	261	644	477	3153
AVERAGE	1970-1975	435	231	219	160	159	176	153	173	150	186	239	263	2544
LOWEST MONTHLY/ANNUAL TOTAL	1970-1975	274	42	84	103	54	59	49	83	17	94	42	57	1801
MAXIMUM 1-DAY RAINFALL MM.	1968-1971	82	82	57	69	69	111	68	60	84	163	88	183	183
TEMPERATURE. DEGREES CELSIUS														
HIGHEST MAXIMUM	1969-1975	33.7	34.8	34.9	34.3	34.8	33.9	33.8	33.5	33.7	33.3	34.3	33.8	34.9
MEAN MONTHLY/ANNUAL MAXIMUM	1969-1975	32.8	33.1	33.3	33.3	33.0	32.9	32.6	32.5	32.7	32.5	32.9	32.5	33.9
MEAN DAILY MAXIMUM	1969-1975	30.1	30.2	31.0	31.3	31.4	31.4	31.0	30.7	30.8	30.7	30.5	30.1	30.8
AVERAGE	1969-1975	27.0	27.4	27.7	27.9	28.0	28.0	27.8	27.6	27.7	27.6	27.7	27.4	27.7
MEAN DAILY MINIMUM	1969-1975	24.0	24.5	24.4	24.6	24.6	24.6	24.6	24.4	24.5	24.5	24.9	24.8	24.5
MEAN MONTHLY/ANNUAL MINIMUM	1969-1975	21.8	22.1	22.3	22.3	22.8	22.8	22.6	22.2	22.4	22.5	22.3	22.6	20.9
LOWEST MINIMUM	1969-1975	19.1	20.6	20.0	20.6	20.7	21.2	20.5	19.9	19.5	20.5	19.4	20.3	19.1
MEAN DAILY RANGE	1969-1975	6.1	5.7	6.6	6.7	6.8	6.8	6.4	6.3	6.3	6.2	5.6	5.3	6.3
VAPOUR PRESSURE (MBS)														
AVERAGE AT 7 A.M.	1971-1975	30.9	30.1	30.9	31.1	30.6	30.3	30.2	30.4	30.6	31.3	30.5	31.5	30.7

Observation Time:
0700 hrs Local Time

J00001 ATAFU, TOKELAU IS LAT. 08 32S LONG. 172 31W HT. 3 M.

		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR
RAINFALL. MILLIMETRES														
HIGHEST MONTHLY/ANNUAL TOTAL	1968-1975	532	580	275	233	251	281	238	167	265	290	167	606	3095
AVERAGE	1968-1975	376	241	221	124	177	147	126	128	163	171	106	357	2337
LOWEST MONTHLY/ANNUAL TOTAL	1968-1975	205	51	201	47	59	72	58	54	66	82	60	61	1871
MAXIMUM 1-DAY RAINFALL MM.	1968-1971	99	105	40	53	58	134	50	44	47	116	76	82	134
TEMPERATURE. DEGREES CELSIUS														
HIGHEST MAXIMUM	1969-1975	34.4	35.0	35.0	34.7	33.4	33.2	32.3	32.8	34.1	33.9	34.0	34.6	35.0
MEAN MONTHLY/ANNUAL MAXIMUM	1969-1975	33.2	34.1	33.3	33.1	32.6	32.2	31.9	32.3	33.0	33.3	33.6	33.6	34.7
MEAN DAILY MAXIMUM	1969-1975	31.2	31.3	31.7	31.6	31.2	30.9	30.9	30.7	31.3	31.6	31.8	31.5	31.3
AVERAGE	1969-1975	28.3	28.4	28.7	28.7	28.6	28.4	28.1	28.0	28.6	28.6	28.8	28.4	28.5
MEAN DAILY MINIMUM	1969-1975	25.3	25.5	25.8	25.8	26.0	25.9	25.3	25.2	25.5	25.4	25.6	25.4	25.6
MEAN MONTHLY/ANNUAL MINIMUM	1969-1975	22.9	23.7	23.3	23.4	23.8	23.6	23.1	23.5	23.4	23.9	23.8	22.5	21.3
LOWEST MINIMUM	1969-1975	21.9	23.2	22.2	22.6	21.7	22.6	21.2	22.7	22.5	23.4	23.0	18.3	18.3
MEAN DAILY RANGE	1969-1975	5.9	5.8	5.9	5.8	5.2	5.0	5.6	5.5	5.8	6.2	6.2	6.1	5.7
VAPOUR PRESSURE (MBS)														
AVERAGE AT 7 A.M.	1971-1975	30.0	29.8	29.9	30.8	30.5	29.9	28.0	28.8	28.6	29.1	29.2	29.4	29.5

Observation Time:
0700 hrs Local Time

Need Ethnology for Mika

22/5/82.

Dear George,

I received your letter date 21 April 1982 and the turtle post card. And I gave that post card to the School, and all the teachers gave me Thanks for kindness to the Takaofo School.

Nothing much around here, but I am quite busy at the moment finding out more information about History of Takaofo long long time ago. But I spent 2 weeks at Nukunonu with some Takaofo's ~~men~~ men discussing how to start the Tokelauan Stories Book.

Turtles ?

I'm very sorry for what you asked me about some information about turtles. We hardly get any turtle, but we only got turtles eggs. Anyway tell me what sort of information you need to know.

How many dates?

Nothing much happen around here, but at the moment I'm still finding more stories about people of Takaofo. And I'm working for the

teachers Adviser from New Zealand. He will be going to stay here for six months. Any way don't forget to sent a Hawaiian newspaper, so that I can read some news about your home town. And asked or wife does she want anything from here and let me know.

Best wishes for all of your families and you.

Aloha Nooma. Kimoni

Sorry for this simple present for you. And ~~tell~~ write me if you wants some Yokelauan Handicraft.

Miss Moana. Kiaroa
Takaroa,
Tokelau.

15/6/82.

Dear George,

Thanks very much for your letter you send over I received it and photo copies. As soon I opened your letter and I saw that photo copies I went straight a way to some of the men inside that photo copies to have a look. They were so pleased when they saw, and asked me. Do they can have it. I cut that photo copies in pieces to give each men their own picture. Do you mind? They told me to tell you there best regards and thanks for sending this photo copies over. They got a shock when I told them you still keep writing to me.

Anyway there's nothing much around here but the youth clubs over here are trainning some marching and some dancing to the big festival when The New Zealand

governer arrive here. He will be here on the second week of July.

Did you received the small turtle I posted it over for you. I'm sorry I posted that turtle to your official business P.O. Box 3830. Apperently I went to the main village that day I couldn't know that the boat is going to leave Tokaofo on that day but I left you address at Tanuafala and that's the only address I found when I'm looking for one at the main village. Sorry there is no turtles ever seen at ~~the~~ this time. I don't know why?.. Must be Something wrong over here. Anyway give us a help to get more and more turtles around here, because people like eating ~~turtles~~ turtles But I don't want eating turtles. Sorry for the bad hand writing because I've got quite a few things to do. I'm working for the ~~T~~ Teacher Adviser from New Zealand he will be going to stay here for 2½ months.

Tell my best wishes for all your families. But keep writing and tell me some news about Hawaii.

Aloha! Moana. Rimoni.

19/5/82

George:

This is more or less the reaction I expected from FAO on your Tokelau turtle report. If everything is not supported by statistics, preferably in tabular form and graphs, or is not related to economics, our HQ types evince little interest. Conversely, they probably have a point since it is statistical data that sells ideas, especially those requiring investment. Passing this on to you mainly for Dr. Fox's address if you have not already been in contact with him, and also in the event you may be interested in the referenced turtle conference. Best regards.

(1)

DATE: 3.5.1982

Our comments on Mr. Balazs' report are as follows:

The attached report is interesting background material, but contains very few hard statistics that can be used to assess the present abundance, or document decline in abundance. This kind of data (frequency of the breeding, beaches, size frequency of turtle and species, etc.) is essential to document the case.

We suggest that the author writes to Dr. W.W. Fox, Director, South East Fishery Centre, National Marine Fisheries Service, 75 Virginia Beach Drive, Miami, Florida 33149 - U.S.A., where they have a regular turtle programme, and where they are now hosting a conference on turtles in the near future.

GNSR/lt

DP 9/10RAS/73/025

cc: Fi Reg.A (2)
Kojima
Caddy
Rao (Diary)

OFFICE MEMORANDUM

TO: Mr. H. Sperling
Regional Fisheries Coordinator
(South Pacific)

DATE: 3.5.1982

FROM: G.N.S. Rao
Project Operations Officer

SUBJECT: Turtles - Your memo of 1/4/82.

Our comments on Mr. Balazs' report are as follows:

The attached report is interesting background material, but contains very few hard statistics that can be used to assess the present abundance, or document decline in abundance. This kind of data (frequency of the breeding, beaches, size frequency of turtle and species, etc.) is essential to document the case.

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GNSR/lt

DP 9/1 ORAS/73/025

cc: Fi Reg.A (2)
Kojima
Caddy
Rao (Diary)

sent 5-28-82
24 lures

Nukunonu
Tokelau
19 - 4 - 82.

Dear George,

Thank you very much for your letter in March I am very happy to read it. I have received everything the fishing lures, film and the tape.

I am very pleased to record some songs for you and the sharing of the turtle. I have finished putting the songs in the tape, and I reserve the rest for the turtle sharing. We did not get big turtle at this time only for the toeaina to eat but not sharing.

I keep on sending information to you about turtle as you require, or any other thing you may interest here I am very please to do it for you.

You have mentioned in your previous letter about the lke in Nukunonu. The lake is called TAIHALA, and the information in the paper is correct. The place now is completely filled up with rocks and level with small stones, and cricket pitch was there and this is where we have our cricket now. The area is just beyon the bridge on your left if you walk to the hospital.

The TAIHALA is a place where we dump the bad people alive and also prisoner of war during war in Tokelau. In the past people heard crying and shouting from that area, but now it all disappeared.

Thank you very much for the plastic lures, and this is the type I really want for my fishing.

Please could you sent 36 plastic lures of the same size in different colours together with the cost of it, I will sent the money for it. I hope it doesnt cause you too much problem.

Convey our love to all the family
Alowha lahi

Sincerely

Luciano Perez.

University of Hawaii at Manoa

Hawaii Institute of Marine Biology
P.O.Box 1346 • Coconut Island • Kaneohe, Hawaii 96744
Cable Address: UNIHAW

April 19, 1982

Mr. Semu Vili
Mr. John Larkindale
Office for Tokelau Affairs
P. O. Box 865
Apia, Western Samoa

Dear Semu and John:

There is a good possibility that I will be able to have my Tokelau sea turtle report published in the near future in a scientific journal. I am therefore in the process of soliciting comments, corrections and other advice from interested parties. Obviously, the Office for Tokelau Affairs is very high on my list. If you have had the time to read through the report, I would certainly appreciate hearing from you. It would also be to my advantage to receive comments from Hosea, Kalolo, and other members of your staff. I will welcome all suggestions.

As you will read in the attached correspondence, I have already written to Judith Huntsman with a similar request. I would especially appreciate your comments on the comments she has offered with respect to "tuahivivalu" (p. 12, par. 2), "kea" (P. 12, par. 3), and "Vavau" (p. 19, par. 1).

Under separate cover, I will be sending you (and each atoll) a recently published wall-size poster illustrating the various sea turtle species.

Best regards to all. I look forward to hearing from you at your earliest convenience.

Sincerely,

GEORGE H. BALAZS
Assistant Marine Biologist
and Deputy Chairman
IUCN/SSC Marine Turtle Group

GHB:ec

Enclosure

University of Hawaii at Manoa

Hawaii Institute of Marine Biology
P.O.Box 1346 • Coconut Island • Kaneohe, Hawaii 96744
Cable Address: UNIHAW

August 28, 1981

Dr. Thomas E. Lovejoy
Program Director
World Wildlife Fund-U.S.
1601 Connecticut Avenue, N.W.
Washington, D.C. 20009

Dear Dr. Lovejoy:

My enclosed proposal entitled "Cooperative Marine Turtle Conservation and Assessment in the Tokelau Islands" is being submitted for funding consideration as the result of encouragement received during a recent telephone inquiry to Program Administrator Nancy Hammond.

Please note that the modest amount being requested from World Wildlife Fund-U.S. ($785) will be matched by approximately $500 in travel costs and other forms of assistance contributed by the Office for Tokelau Affairs. This is admittedly a small project, but nevertheless one of potentially longterm significance to the isolated and resource-limited native inhabitants of Tokelau. I should also point out that this cooperative work responds directly to Action Projects 66, 110, 114, 132 and 135 of the Sea Turtle Conservation Strategy that resulted from the World Conference on Sea Turtle Conservation.

As requested, by copy of this letter I am informing Bob Scott at IUCN/SSC of my proposal for financial aid from World Wildlife Fund-U.S.

Thank you for your consideration. I look forward to hearing from you on this matter at your earliest convenience.

Sincerely,

George H. Balazs

George H. Balazs
Assistant Marine Biologist

GHB:lb

enclosure

Due to severe funding restrictions on foreign travel at both the State and Federal levels, no money is available for this project through my affiliate institutions. GHB

U.S. APPEAL

Check #1529

Sept. 17, 1981

WORLD WILDLIFE FUND

1601 CONNECTICUT AVENUE, N.W.
WASHINGTON, D.C. 20009
CABLE: PANDAFUND TELEX: 64505
TELEPHONE: (202) 387-0800

NOTIFICATION OF PROJECT PAYMENT
FROM WORLD WILDLIFE FUND (U.S.)

BY: Nancy E. Hammond DATE: September 17, 1981
NANCY E. HAMMOND
PROGRAM ADMINISTRATOR

WWF PROJECT TITLE: ~~Abundance, distribution and movements of olive ridley sea turtles~~ Cooperative Marine Turtle Cons. and Assessment im the Tokelau Islands

WWF PROJECT NUMBER: 32960186

AMOUNT PAID: $785.00

PAID TO: George H. Balazs

ACKNOWLEDGEMENT BY RECIPIENT:

To verify receipt of payment please sign and return one copy each to:

WORLD WILDLIFE FUND - U.S.
1601 Connecticut Avenue, N.W.
Suite 800
Washington, D.C. 20009

WORLD WILDLIFE FUND-INTERNATIONAL
Avenue du Mont Blanc
CH-1196 Gland
Switzerland

You may keep the third copy for your own records.

World Wildlife Fund will require a terminal report upon completion of this project. Photographic documentation for possible use in WWF publications and interim project reports are also required if specified.

DATE: 9-22-81 SIGNATURE AND TITLE: Geo H Balazs
Principal Investigator

Ag.—G. 101

New Zealand

Ministry of Agriculture and Fisheries

Ref: 9/3/2/12

May 17 1982

Mr George H Balazs
Hawaii Institute of Mannic Biology
Kaneohe
HAWAII 96744

Dear George

Thank you very much for a copy of your report on "Sea Turtles and their traditional usage in Tokelau". I doubt if anybody could have found out more about these very interesting creatures, and you have achieved another milestone in the current history of turtles in the Pacific Islands. Let us hope that as a result of your visit to the Tokelau Islands the people there will appreciate more fully the wise management and utilisation of turtles, so that they do not become to future zoologists, an interesting marine mammal that became extinct towards the end of the 20th century!

Keep up the good work, and if at any time we can provide any assistance from New Zealand don't hesitate to get in contact.

With Kind Regards

Vol Hinds.

(V T Hinds)
Assistant Director (Technical)
Fisheries Management Division

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Croxley

DRG A Dickinson Robinson Group Product

SENDER'S NAME AND ADDRESS
Ministry of Agriculture & Fisheries
Private Bag
Wellington
NEW ZEALAND

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& FISHERIES
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WELLINGTON, N.Z.

1982

NEW ZEALAND POSTAGE
17.5.82
NEW ZEALAND
0.40

Mr George H Balazs

Hawaii Institute of Marine Biology

Kaneohe

HAWAII 96744

FAKAOFO
TOKELAU

21/3/82.
21 MARCH 82

Mr George.

Thanks very much for your letter that you send to me and I've got it with lots of pleasure. As you ask me about some information about turtle. I'm very sorry, ~~the~~ my village haven't got ~~and~~ any turtle since you left. But anyway I will keep in touch to you when we got turtles over here.

You know (Elizabeth) that girl you took a photograph for her, her father was died ~~last~~ two weeks ago. Thanks very much for the photos you send over. How would you like ~~the~~ to that photo I took. I was a little ~~bit~~ bit worry just incase that photo might come out wasn't very good. As you said you are very fond about ~~the~~ my island, and I'm sure we got the same idea. Because I'm very happy to keep in-touch to you and find out some news about your place. And not just only that but that's make me better training my English.

At the moment I'm here at Atafu Nukunonu and that's where I'm writing this letter. I came over to Nukunonu for the (TOKELAU GENRAL MEETING) The eldest of the village choose me and ~~Dr~~ Dr Iona. To be a member for the general-meeting to ~~be~~ tell some few stories about the people of Fakaofo long long time ago. I've got some few news about those things that we discuss at the genral Meeting, but I'm very sorry, I haven't got time. I'm very busy.

Congratulation to your Son and may God bless him. My best regards to your families and you. ALOHA!

Keep writing!

Mamatiuri

Ag.—G. 101

New Zealand
Ministry of Agriculture and Fisheries
Private Bag
Wellington

November 26 1981

Mr George Balazs
University of Hawaii
PO Box 1346
Coconut Island
Kaneohe
HAWAII 96744

Dear George

Many thanks for turtle cards, these are very fine - well done.

Your comments about the Tokelaus are most interesting and I am glad you were able to get there at long last. It is just ten years ago when I dived around the main island, and in the central lagoon with Hank Banner, who later was killed by a tiger shark while on his way to collect turtle eggs on the south side of Upolo in Samoa.

I shall be glad to see your report by and by.

Your further note and enclosed report on the Japanese drift net squid season arrived today and I shall copy to Charles Hufflett.

Again, many thanks.

Yours sincerely

Val Hinds.

(Val Hinds)

To open slit here

To open slit here

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SENDER'S NAME AND ADDRESS

Ministry of Agriculture & Fisheries
Private Bag
Wellington
New Zealand

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WELLINGTON
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NEW ZEALAND
POSTAGE

Mr George Balazs
University of Hawaii
PO Box 1346
Coconut Island
Kaneohe
HAWAII 96744

Nukunonu
Tokela.
23/2/82

Dear BALAZS

Perhaps you're well and enjoy the beautiful sun of Hawaii may be you received my per previous letter.

I have a film need to develop I received the one you developed last time it is of great process everything is OK.

I hope this wont cause you many troubles.

Hope to hear from you soon.

Regards.

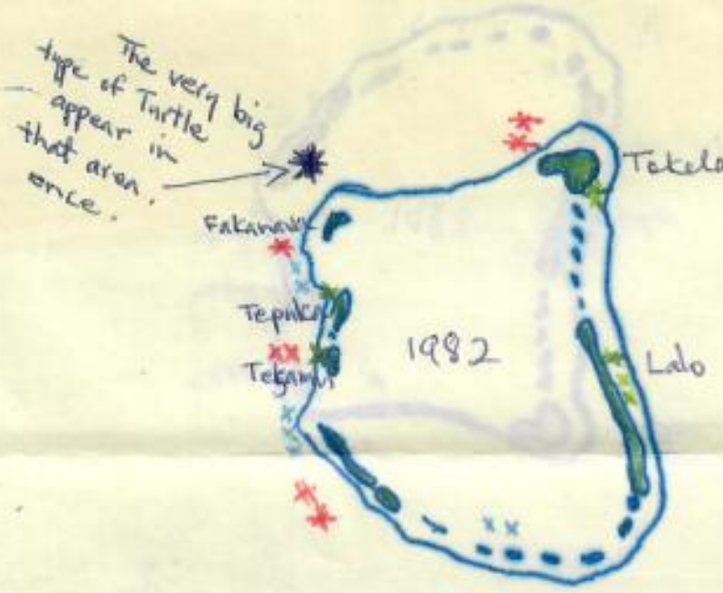
Luciano Perez.

Informations.

(1) Turtles caught in Nukunonu.

Key: Turtle lay eggs.
Couple.
Young Turtles.

No records.
on 1981



Total
13 Big Turtles.
7 Young Turtles.

Total

8 Big Turtles

4 Young Turtles.

7th Sept 1983.

Dear Balozs,

Thanky you for your letter and the magazines. I just return to Nukunonu few weeks ago. I attended a Seminar at Western Samoa on Manpower plan, sponsor by the Commonwealth. I also went to Niue to visit our Scholarships there and then Rarotonga and return to Apia. It was quite good for a break.

The tide has now return to normal since July.

I just prepare a short record of information about turtles caught at Nukunonu. I also note down the place where it caught for your interest. Sorry I didn't record 1981. Any other information about Turtle I'm please to do it for you. I ~~don't~~ think all turtles caught are green turtles. The people still on the habit of eating turtle eggs If you are interest with the number of eggs per turtles I could do it for you also.

Thankyou for helping me selling my shells I shall meet all the cost of sending the shells to you. It is very ~~ha~~ difficult for

P.T.O

~~I~~ I~~n~~ to put price on the shells because I have no idea with your market down there, and I am ~~relying~~ relying on you to give reasonable price for them. I only give price for maybe one or two types I know it cost a bit more because I trade with a guy at the Otago University in N.Z. he's a marine biology study ~~sh~~ sea shell, and that is the price he offer. It could be more if it is a rare shell.
I enclose his original letter for you to see maybe you could sent it back to me.
I gave up with him, because he never pay the right amount for the shells.

Q1

Nukunonu
Tokelau
5-1-82

Dear Balazs,

Thank you very much for everything that you have send and I was very pleased with them. The movie film is in good condition and the colour slide film ~~am~~ I am very much like the colour slides film for my underwater camera.

Since your left from Tokelau we have got only 1 couple turtles I believed both of them are green turtles, I took photo both of them I will send you a copy later.

I am very much like to hear from you or anything you want me to do for you at this end, I am very please to help you.

I am looking forward for your next visit to Tokelau. The articles about the coconut crab are quite interesting. I have posted a small Tokelauan box for you to remind your visit to Tokelau, any other sort of Tokelau craft you want write to me and I'll get it for you.

Please could you send me another 35 mm film and some small plastic octopus for my Bonito fishing about 2-3 inches long the size. I prefer the colour red, light green, yellow and blue.

P.T.O.

I hope you don't mind.

Fishing is my best hobby here in Tokelau and fish is our best diet. Please could you make a contact for me with a shop in Hawaii so that I could buy from them ~~may be~~ different sort of fishing gears may be Hawaii is the best place. Please could you advise me on this matter.

I hope to hear from you soon.

Best Wishes.

Sincerely,

Luciano Perez.

FOOD AND AGRICULTURAL ORGANIZATION
OF THE UNITED NATIONS

UNITED NATIONS
DEVELOPMENT PROGRAMME

PROJECT RAS/73/025
REGIONAL FISHERIES CO-ORDINATOR (SOUTH PACIFIC)
OFFICE OF THE RESIDENT REPRESENTATIVE FOR THE SOUTH PACIFIC
UNITED NATIONS DEVELOPMENT PROGRAMME
PRIVATE MAIL BAG
SUVA, FIJI

TELEPHONE: 22489
CABLE ADDRESS UNDEVPRO SUVA
TELEX: 2228FJ

LETTER NO: 112
REFERENCE: DP 9/1 RAS/73/025
IL 14

Personal and Confidential

31 March, 1982

Dear Mr. Balzas,

Thank you for your letter of 19 March and the copy of your report on Tokelau turtles, which I received late yesterday and am answering immediately to make up in part my oversight in failing to reply to your letter last November. My apologies for the latter but I had just recently returned from a short home leave and had a small mountain of accumulated paper awaiting me (the bottom of which, frankly, I still have not reached), so some items have been deferred. I try to acknowledge each letter I receive within a reasonable time but too often replies have been inordinately delayed in the past, and undoubtedly will continue to be so in the future.

Be that as it may, I should like to congratulate you on a really excellent job of reporting, one of the best I have read in a long time. The organization and language used are particularly good, as is the subject matter. Although there have been a number of papers and publications done on turtles in the South Pacific, many of which you cite, I suggest that copies of your report be circulated to Chief Fisheries Officers in all the countries of the region to stimulate a current awareness of the needs for conservation and ideas for simple methodology - i.e., traditional means and measures that are as valid in this era of alleged enlightenment as they were a couple of centuries ago. I am sure the University of the South Pacific's Institute of Marine Resources as well as the South Pacific Commission would appreciate copies if you have not already despatched them.

Now for the bitter. UNDP/FAO activities and efforts are oriented solely toward economic development so no matter how desirable or worthwhile, a turtle conservation programme per se is not likely to qualify for support since, I am inclined to believe, it is held to be a matter primarily of academic interest and concern affecting relatively few people and, possibly of most significance, there is no bottom line figure attributable to the resource. If it were a large and economically important resource threatened with extinction - e.g., North Atlantic herring, cetacea, et al - then governments and organizations would be stumbling all over each other to climb on the management/conservation support bandwagon. A rather harsh indictment of our times, I'm afraid, but essentially valid.

Mr. George H. Balazs
Assistant Marine Biologist
Hawaii Institute of Marine Biology
P. O. Box 1340, Coconut Island
Kaneohe, Hawaii 96744
U.S.A.

....2

On the other hand, I can also appreciate the positions of UNDP/FAO and other aid organizations whose mandates limit them to attaining specific economic objectives, with their resources pledged to the hilt for some years to come in response to requests from developing countries, as having to draw the line somewhere. As is inevitably the case, this line is not always clearcut and arguments can be mounted pro and con to lift an activity out of the gray area.

I fear this has been a rather lengthy preamble to answering the main point of your letter - i.e., whether turtle conservation is an area of work for other Pacific island areas that could possibly be funded by this project. While there is little question that the subject would be of considerable interest and importance to other islands, particularly the more remote atolls, this project would be unable to fund any extended or long-term activity. However, but without commitment at this time, there is the possibility of :

a) Supporting a short-term consultancy along the lines of your Tokelau work for a specific, limited area, but this would be entirely contingent upon a formal request from the Government concerned to UNDP. I doubt such an exercise could be mounted this year, but there is some chance for 1983/84. If you distribute copies of your report to the various Chief Fisheries Officers, in your cover letter you might query their respective interests in having similar work done (without mentioning any possible UNDP/FAO involvement) and let me know of any affirmative replies upon which I can follow up. I trust you understand it is not exactly kosher for me to sell consultancies having minimal economic impact.

b) Sponsoring short term training for islanders. In this respect I am enclosing a couple of pages from a lengthy indicative five-year marine resources development plan I prepared for Micronesia six years ago almost to the day - and in the interim I have only met three people who actually read the bloody thing, two from U of H and Fujinami, Chief Adviser on Fisheries to the Minister of Agriculture and Fisheries of Japan, none from Micronesia - which echoes some of your thoughts and recommendations. It may be possible for the project to sponsor one or two short study tours aimed at instruction on turtle conservation (again at specific government request) and if you feel the idea has merit, I should appreciate your recommendations as to subject matter content, etc. One likely problem I can foresee is the difficulty in identifying suitable candidates who would gain the most benefit from such instrucion, and having the intellectual capacity to absorb and apply it, and I don't mean at an academic level. Something that would have to be guarded against is for such study tours becoming political plums, where the trainee selected is likely to visit a turtle nesting beach about once every ten years, or when he is turned out of office.

.....

One last thought, and possibly I'm stating the obvious - I understand the South Pacific Commission has some consultancy man-months from the United Nations Environmental Programme (UNEP) and it may be possible to apply some of this funding toward turtle conservation activities. Since you have worked with SPC before I presume you have contacted them on the matter, but thought I'd mention it in the event you may have overlooked this potential source.

...3

I think I have rambled on enough this time. Since I have been somewhat more candid in this missive than might be politic, I hope you and Phil will treat it as confidential. There are times when mine taskmasters prefer circumlocution to calling a spade a spade, which I suppose is the essence of diplomacy but sure gets to be a drag.

With best regards, I remain

Yours sincerely,

Harry Sperling, Jr.
Regional Fisheries Coordinator

Encl (1)

cc: Dr. P. Helfrich, Director, Hawaii Institute of Marine Biology, Kaneohe.
RAS Chrono only.

H. Sperling, Jr.
UNDP Private Mazil Bag
Suva, FIJI

George: An afterthought. Can you send me one more copy of your report, please? Am forwarding the first copy to FAO Headquarters for information and comment together with a pitch for future consultancies and/or study tours. I hope the latter doesn't fall on deaf ears or in front of excessive astigmatic vision. Will let you know the reaction in due course. Regards.

h sperling

UNITED NATIONS
DEVELOPMENT PROGRAMME

TH PACIFIC)
HE SOUTH PACIFIC
GRAMME

CABLE ADDRESS UNDEVPRO SUVA
TELEX: 2228FJ

1 31 March, 1982

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Mr. George H. Balazs
Assistant Marine Biologist
Hawaii Institute of Marine Biology
P. O. Box 1340, Coconut Island
Kaneohe, Hawaii 96744
U.S.A.

....2

(iv) The possibility exists for a small shark fishing industry. There is a fair demand for fins, hide and fillets in Singapore, but quality standards are very high - i.e. fins must be dried properly, hides must be cut and cured adequately, and without blemishes or lesions, and the flesh is subject to mercury content limitations. Meeting such stringent criteria will be laborious and may not appeal to the Micronesian fisherman. Additionally, such an industry would always be limited in scope since shark are notoriously slow reproducers and stocks can be fished out in relatively short order.

(v) Wilson (1967) reports that marine crocodiles, Crodylus porosus, are prevalent in the Palau Islands to the extent they are a hazard to underwater fishermen, and they are not actively hunted for their hides. Since prices for the hides are high - and again price is contingent upon proper curing and absence of blemishes or lesions - the possibility exists for a small but rather lucrative industry. These reptiles have been hunted so intensely in West Irian Indonesia that they are on the verge of becoming an endangered species.

As an alternative to hunting wild crocodiles, which is difficult and at times hazardous, the possibility for capturing young juveniles and raising or farming them in captivity should be explored. This is being done successfully in Singapore although the operator reportedly has not been able to achieve reproduction in captivity. Consequently, he is limited to purchasing or capturing juveniles and raising them to marketable size. However, Wilson reports that a mature female spawned in captivity in the zoo at the Entomology Laboratory in Palau but the eggs did not hatch, probably because the zoo had a concrete floor and the animal was unable to bury the eggs.

It is recommended the feasibility for farming crocodiles Palau be explored. As a first step, all possible data should obtained on the techniques involved, plant facility requirements, ology and life history of the reptile, feeding requirements, and e economics of existing enterprises.

(vi) The two most common sea turtles, Green (Chelonia mydas) and Hawksbill (Eretmochelys imbricata), are becoming universally endangered species and strict conservation measure are required.

Regulations governing the taking of turtles and their eggs, and defining turtle sanctuaries, do exist for the Trust Territory but are not enforced to any extent. Enforcement by patrol would be prohibitively expensive and virtually useless over such a vast area; rather, the solution lies in educating the population about the dangers of decimating the turtle populations through unrestricted hunting of both the animal and its eggs. Many ancient taboos and cultural 'no-nos' are still observed in Micronesia so if a modern prohibition dealing with conservation measures could be instilled in the same context, the matter would be self-policing.

The importance of this message must be put across to a native Micronesian actively associated with turtle hunting as something he can see and realize for himself for subsequent communication to his peers, and in such a way that it is not merely another constraint handed down by a politician or government department. A step in this direction would be to identify a relatively young, respected man from one of the more remote islands (possibly in the Carolines) and send him on a fellowship to observe turtle conservation and farming techniques practiced in other areas. Turtle farming at a village level is being done in the Torres Straits area of northern Australia, farming activities are practiced in Thailand as well, and Malaysia has a well-developed conservation programme which does not go so far as to raise turtles to maturity. All three of these areas can and will offer training in English, and this need not be at an academic level. Hopefully, such exposure would point up the necessity for conservation and at the same time stimulate sufficient interest for Micronesians to protect hatchlings and even raise them in captivity for three or four months to increase their chances of survival.

[illegible] such a

UNDP/FAO is not in the position now to [illegible] fellowship, but it is felt that FAO would be willing to make the necessary arrangements for training on behalf of another funding agency.

(vii) While there are several species of the giant clam, Tridacna gigas for example, common in Trust Territory waters, their distribution varies from district to district and there are no data as to their relative abundance. This clam represents a very popular food and considerable numbers of shell are exported or sold locally as curios. Personal communications in every district indicated they are becoming scarce to the point that stringent conservation measures should be instituted and enforced.

AIR MAIL

NUKUNONU ATOLL

TOKELAU. 1981.

GEORGE BALAZS
HAWAII INSTITUTE OF MARINE BIOLOGY
P.O. BOX 1346
KANEOHE,
HAWAII 96744


Sender L. Perez
Nukunonu
Tokelau
VIA APIA
W. SAMOA.

WORLD WILDLIFE FUND-U.S.

1601 CONNECTICUT AVENUE, N.W.
WASHINGTON, D.C. 20009
CABLE: PANDAFUND TELEX: 64505
TELEPHONE: (202) 387-0800

March 25, 1982

Dr. George H. Balazs
Hawaii Institute of Marine
Biology
P. O. Box 1346
Kaneohe, Hawaii 96744

Dear George:

Thank you for your excellent report on Sea Turtles and Their Traditional Usage in Tokelau. It was well worth waiting for. We would very much appreciate being kept informed of how your recommendations are received by the elders.

I am circulating copies of the report to IUCN and to the staff here and will let you know if there are any questions or comments.

Best regards,

Nancy

Nancy E. Hammond
Project Administrator

cc: Anton Fernhout, IUCN

March 19, 1982

Mr. Harry Sperling Jr.
Regional Fisheries Coordinator
Office of the Regional Representative
UNDP
Private Mail Bag
Suva, Fiji

Dear Mr. Sperling:

As promised, I am sending you a copy of my report covering an investigation of sea turtles and their usage in Tokelau. You will probably recall that I mentioned this study to you in a letter written in November (copy attached).

After you have the opportunity to look through my report, I would be most appreciative to learn if this is an area of work for other Pacific island areas that could possibly be funded by your office. Any information or advice that you can offer on this subject will be greatly appreciated.

Best regards.

Sincerely,

George H. Balazs
Assistant Marine Biologist

GHB:md

Enclosure

cc: P. Helfrich

November 5, 1981

Mr. Harry Sperling, Jr.
Regional Fisheries Coordinator
Office of Regional Representative
UNDP
Private Mail Bag
Suva, Fiji

Dear Mr. Sperling:

You may recall that I met with you in Suva during February of 1977 to discuss the SPC turtle farming project. At that time, I had been asked to serve as an honorary consultant to evaluate both the Fiji and Cook Islands components of the project. My comprehensive report was subsequently submitted to SPC. I hope that a copy eventually reached your office for use as a reference document.

I have just recently completed a ten-day visit to Tokelau to assess sea turtle populations and record the cultural/nutritional importance of this resource to the Polynesian inhabitants. Financial support for this short project was provided by a grant from the World Wildlife Fund. The office for Tokelau Affairs gave me passage at no cost on their supply vessel out of Apia. I regret that circumstances and timing did not allow me to meet with you during your recent trips to Hawaii and Western Samoa.
Dr. Philip Helfrich, Director of our institute, told me that you had been to Tokelau several years ago. It seems likely that I once again could have benefited from your insights.

My report on Tokelau for the World Wildlife Fund will be completed by the end of January. I will be sure to send you a copy. In the meantime, I would like to know if your office would be receptive to proposals concerning the management of sea turtle resources in the Pacific islands, such as at Tokelau. The overall goal of such work would be to reinforce traditional conservation practices and achieve a balance between the use of turtles for human needs and the protection of the breeding stock. Some efforts need to be undertaken along these lines or the resources will surely be lost to future generations of Pacific islanders. Is this an area of work that could be funded by your office? As you may know, SPC is not currently interested in funding projects involving sea turtles, although they did co-host a workshop in December of 1979. Any information or advice that you can offer to me will be greatly appreciated.

Sincerely,

George H. Balazs
Assistant Marine Biologist

mk

University of Hawaii at Manoa

Hawaii Institute of Marine Biology
P.O.Box 1346 • Coconut Island • Kaneohe, Hawaii 96744
Cable Address: UNIHAW

March 12, 1982

Nancy E. Hammond
Program Administrator
World Wildlife Fund-U.S.
1601 Connecticut Avenue, N.W.
Washington, D.C. 20009

Dear Nancy:

Enclosed is my final report to the World Wildlife Fund covering the work with sea turtles in Tokelau which you kindly funded. I hope that the expanded scope and detail that I have incorporated in this document will make up for the few weeks it is late being sent to you.

I am simultaneously sending a copy of the report to the Office for Tokelau Affairs, in recognition of the fact that this study is a cooperative and continuing venture. You may recall that the Tokelau administration provided my vessel transportation, and food and lodging while I was in Tokelau. The Council of Elders on each atoll will also be sent a copy, since they are directly in charge of sea turtles and have the power to implement suggestions for conservation.

With some slight modification, I intend to send this manuscript to Micronesica for possible publication.

Best regards, and thank you again for all of your help.

Sincerely,

GEORGE H. BALAZS
Assistant Marine Biologist

GHB:ec

Enclosure

~~& essential~~

RECOMMENDATIONS FOR CONSERVATION
(Regulate exploitation)

BEST NOT TO MENTION

~~(X) Predation by others at feeding areas - other native people dependent on what they put out - interwoven/linked (see Balazs, in press)~~

② Send hawk plates (3C) ~~[Allow to lay before taking? [illegible]]~~

③ ~~Possible size reduced - no "Tuahivi vatu" - also no longer seen in Cooks -~~ using up an accumulation of old & large turtles - taken many years to accrue

④ ~~Raise & release from eggs; or raise longer in Fakaofo lake (not for food - wouldn't taste good)~~

(3B) ~~Establish bias to males in hunting~~

(3B) ~~Moto closure -~~ ~~establish as few islands as reserve or~~ inviolate reserves ~~for turtles~~

(1) LIKE ~~ATAFU~~ ~~Protect all eggs -~~ ~~those dug up~~ handled with care,

~~(X) Hatch shells in tract~~ ~~NO GOOD~~

(5) have tags available; collect data Records

(10) ~~Boats on Reef - oil pollution~~ Phoenix similarity

(8) Strengthen village ownership - Retain ceremony & custom; keep trad. place in culture

(4) ~~Refrain from selling resource - putting cash value on~~ ~~(keep incentive to harvest [illegible] down)~~ ~~i.e. also not to foreign fishboats~~

(3A) ~~Only~~ QUOTA ~~take a portion~~ of ~~what~~ ~~sighted~~ [illegible]

(1A) ~~Don't take turtle & eggs from beach~~ Gilberts

Proven social & ecological disruption

Fakaofo,
Tokelau Is,
24/2/1982.

Dear George Balazs,

I've been received your letter that you sent me on the 8th of November 1981.

I was very glad to read it and heard good news from you. Thankyou very much for the nice photo that you sent me. I do hope that I'll send you a small Tokelauan fan as a souvernior to remind your visit to Fakaofo, and I'll send you on the following trip.

Regards.
Kalepa. & Family

WORLD WILDLIFE FUND-U.S.

1601 CONNECTICUT AVENUE, N.W.
WASHINGTON, D.C. 20009
CABLE: PANDAFUND TELEX: 64505
TELEPHONE: (202) 387-0800

January 26, 1982

Dr. George H. Balazs
Assistant Marine Biologist
Hawaii Institute of Marine
Biology
Box 1346
Cocunut Island
Kaneohe, Hawaii 96744

Dear George:

I have just received your letter of January 19th enclosing the financial report on your Tokelau Islands expedition. We will extend the due date for the technical report to March 1st. I do hope you will be able to get it to us then.

I have been meaning to write to let you know that we will be providing a $15,000 grant to Steve Cornelius and Doug Robinson for their Olive Ridley work in Costa Rica. I'll send you copies of their reports as they become available.

Kim Cliffton is winding up his field season in Mexico. It has been a year fraught with Bureaucratic difficulties and control contraband activities continues to consume much of Kim's time. However, I just received a phone call from him yesterday and pressure to conserve sea turtles is beginning to build within Mexico and Kim is optimistic that this kind of internal pressure will have far more influence on the Departmento de Pesca than any amount of pressure from outside.

I hope your work is going well.

Best regards,

Nancy

Nancy E. Hammond
Project Administrator

P.S. George, thanks for the post card collection. They are wonderful shots. The monk seal and green turtle napping together is now up on my wall.

LEGEND

- Village
- Anchorage
- Landing place
- Flying boat alighting area
- Emergency flying boat alighting area
- Coral reef
- km Kilometre
- mi Statute mile
- nmi Nautical mile (international)

MAP NO. 2899
SEPTEMBER 1976

UNITED NATIONS

Monthly MARINE TURTLE SEMINAR

10 17½ 12

>2000 miles

5390
1150
4240 N.C. → TAHITI

2500

4240

Check Telemetry & (Taylor?)

60 45 300 420

7 species
6 of which occur in the Pacific

- Species slides
- HA migration map
- Pacific Is. Migration map
  Black out
- SPC Pacific map
- Samoa Islands
- TOKES together
- TOKES individually
- Samoa Is.
- Apia, sights
- ~~Hawaii slides~~ TOKE OFFICE ?
- Under sail
- Arrivals Composite
- Village views A FEW PEOPLE 170 - Alloted 60
- Turtle Habitat
- Turtle use - Capture / catch / shells
- Human use
- anecdotes death / rugby / ark hook / GAS LINE
- Dancing Boat sinking / Taiwan boat
  IA SOKULA
  STORMS

~~Shells~~

KIKI

Itinerary

WHO FUNDED THE TRIP?

I. WWF - RT Airfare to W. Samoa

II. Office for Tokelau Affairs (NZ Government) - VESSEL PASSAGE AND SUPPORT ON ISLANDS

III. My salary - IPA with UH paid by Honolulu Lab (BILL G.)

16-27 NOV
Turtle Season

WHY GO TO TOKELAU?

I. One of the papers I presented at WCSTC entitled "Status of Sea Turtles in the Central Pacific" included a section on Tokelau that was based on correspence with carried out with Tokelau school teachers, on each island. Enough information was provided for me to realize much more could be learned about sea turtles and their tradition role at these relatively isolated Polynesian atolls. SEEMED LIKE AN EXCELLENT STUDY AREA - ONE THAT HAD ALMOST BEEN TOTALLY OVERLOOKED BY SEA BIOLOGISTS - PROBABLY DUE TO DIFFICULT ACCESS.

PART of CPac covered in paper IN 1979 carried OUT

1981 W. Samoa ED. IN FEB WHILE DIRECTOR OF MES

I HAD NO EXPECTATIONS ABOUT FINDING LARGE NUMBER OF TURTLES - BUT THE ONES I WOULD FIND I KNEW WERE IMPORTANT TO THE NUTRITIONAL AND CULTURAL WELL-BEING OF THE PEOPLE.

SAID ELDERS ARE CONCERNED ABOUT DECLINE

SMALL POPULATIONS ARE WORTH TRYING TO SAVE, ESPECIALLY WHEN IMPORTANT TO PEOPLE LIVING A TRADITIONAL LIFE STYLE

OBJECTIVES - Briefly

I. Gather current information of turtles, customs and usage

II. Supply educational materials on sea turtles to the schools, Councils of Elders and other interested individuals

III. Provide ADICE, AS APPROPRIATE, TO THE PEOPLE. FOR MY VISIT

APPROVAL WAS REQUIRED FROM THE COUNCILS ON EACH ISLAND - THIS WAS GRANTED

TOKELAU - WHERE ARE THEY AND WHO LIVES THERE?
- HISTORICAL OVERVIEW -

3 CORAL ATOLLS 8°-11°S ; 171°-173°W
5-15' elevation
300-400 miles N of Samoa -
about 2000 miles south of Hawaii;
400 miles east of TUVALU; 300 miles
west of Northern Cook Islands of
(Puka Puka - Rakahanga - Penrhyn)
4th - (CLOSEGIA SWAINS) - under U.S. Jurisdiction

	Nukunonu	Fakaofo	Atafu	Swains
Total land area - acres	650	612	502	~350
1978 population -	373	605	587	~40

(Refer to BLACK BOARD) 640 acres = 1 sq mile;

INHABITED BY POLYNESIAN PEOPLE
(Approx) TOTAL - 1600
Consider themselves as one stock - Tokelau language -
Group is a territorial dependency of New Zealand - People are New Zealand citizens - 2000 live in New Zealand; 300 in Western Samoa; possibly 150 in Hawaii

HISTORICAL SKETCH -

European knowledge - starting 1765 - 1835

History of VOYAGING TO OTHER IS. - DOUBLE CANOES - STAR TO HAWAII

MISSIONS - 1895 - 1863 -

CONVERSION TO CHRISTIANITY

1 - Protestant
1 - Catholic
1 - Both represented

Peruvian Slave raids 1860's

DEPOPULATION - DISEASE INTRODUCTION

1860s-1870s several foreign traders, mostly of Portugese descent, settled in islands -
+ Wide variety of immigrants have also contributed to the + genetic make-up

HURRICANES - 1846 (canoes to Wallis)
1914 (church NUKUNONU)
1966 (Resettlement Scheme

LIMITED RESOURCES OF ATOLL ENVIRONMENT -

RAINFALL - ~115 inches year -

WATER: ANCESTORS - Holes in Coconut trees
Wells
Coconuts

MODERN - Roof catchment into tanks

FOOD: ANCESTORS - Poor soil conditions
Coconuts
Pandanus
fish
Crustaceans - mollues
Turtles
Birds - Bird eggs
MODERN - Add
Breadfruit (3 kinds)
Limited: PULAKA (type of taro)
PAPAYA
Bananas
Pigs
chickens

IMPORTS - AVERAGE 5 cargo vessels
A year - brings taro, flour, rice some canned goods, beer, diesel and gasoline.

SOCIAL ORGANIZATION:
People live in a single village on Nukunonu & Atafu.
On Fakaofo a second village was started (late 1950s) due to overcrowding.
People function principally as part of "Kaiga" or KIN groups [UNDER A SYSTEM KNOWN AS INATI]

They work together for common purpose and well-being of the community. Children are valued assets. Villages are governed by a Council of Elders.

MEN - Time taken up making copra on the "motu" plantations, fishing, & village projects. WOMEN - Household; Children; community WELFARE

EACH ISLAND HAS A MED. DOCTOR, A SCHOOL AND RADIO COMMUNICATIONS WITH OTHER ATOLLS AND APIA - SMALL GENERATOR - SUPPLYING SMALL LIGHT IN EACH HOME,

REFERENCE LITERATURE FOR FURTHER READING:

Gordon McGregor. 1936.
Ethnology of Tokelau

Several papers by 1971 -
Tony Hooper - Judith Huntsman
Journal Polynesian Society

WODZICKI - SPC Bulletin

PACIFIC SEA TURTLES - OVERVIEW

I. Species review (7 species - 6 in the Pacific)
   A. green; hawk; leatherback; loggerhead; olive ridley; flatback; Kemp's ridley
   B. 3 species in Hawaii; 6 in Australia 5 in New Guinea; in Pacific islands, green most common
   C. General Life history scenario for all species
      1. Migrant breeders - often over great expanses;
      2. converge into breeding colonies at specific, and presumably ancestral, sites (USUALLY AT 2 or more year intervals)
      3. copulation in nearshore waters
      4. females alone crawls ashore at night and dig nest where from 50-200 eggs are laid - Repeat several times at 10-15 day int.
      5. Adults migrate back to same resident foraging pastures AT END OF SEASON.
      6. Eggs incubate unattended for 50-70 days
      7. Hatching takes place, and 2-4 days later hatchlings emerge at the surface, usually at night, and scramble to the sea;
      8. Hatchlings rapidly swim out to sea - enter into a pelagic existent probably lasting 1-3 years.
      9. Appear in nearshore waters at 25-35 cm where they (reside and mature) EXCEPTION - LEATHERBACKS & RIDLEYS - STAY PELAGIC

LEST KNOWN ∴ MY EMPHASIS HERE IN HAWAII

(Conservation/Management)

D. SEA TURTLES are marvelous animals that have generated great interest mainly because of their: unique biology; availability as a nutritious food source; commercially valuable component parts; (ie tortoise shell; leather) and their overall declining conservation status, at least for 6 of the 7 species.

OVERALL STATEMENT

Some of the (INTERACTING) reasons for this decline, as identified by WCSTC (Nov 79 - 40 countries, 300 participants, sponsored by WWF; NMF; FNS; US State Department) include: OVERHARVESTING; INTERNATIONAL COMMERCIAL TRADE; DESTRUCTION OR MODIFICATION OF BREEDING AND FORAGING AREAS; INCIDENTAL TAKE WHILE FISHING FOR OTHER SPECIES; AND inherent BIOLOGICAL CONSTRAINTS THAT MAKE THEM SLOW TO RECOVER FROM EXCESSIVE FISHING AND OTHER STRESS TO THE POPULATION.

ALL listed in Appendix I of CITES (50 signatory nations)

SINCE 1978, there are 6 SPECIES listed under the U.S. Endangered Species Act.

CHALLENGE - IS TO ACHIEVE A balance between limited USE for legitimate human needs, and adequate protection for the perpetuation of the species. BIOLOGICALLY SOUND MANAGEMENT

NEED - DESIRE - TRADITION

TITLE: SOME ASPECTS OF SEA TURTLES AND THEIR TRADITIONAL USAGE IN TOKELAU

GIVE YOU A GENERAL IDEA OF THE OUTLINE I PLAN TO FOLLOW IN MY TALK THIS MORNING -

First

I. OVERVIEW OF SEA TURTLES
- A FEW WORDS ABOUT LIFE HISTORY (INCLUDING)
- A REVIEW OF THE 7 SPECIES
LOOK AT SLIDES -
DESCRIBE KNOWN MIGRATIONS IN PACIFIC

Then

II. GIVE SOME BACKGROUND ON TOKELAU -
Where is it?
WHO LIVES THERE?
MANNER OF LIFE THE PEOPLE FOLLOW;
HISTORICAL SKETCH OF THE ISLAND GROUP.

III. REASONS WHY I WENT THERE

IV. WHO FUNDED THE TRIP

V. STUDY METHODS USED

VI. Then go through another series of slides and describe many of my FINDINGS
- FORTUNATE CAPTURE killing and distribution of turtles

Purpose of this Seminar - like any seminar -
IS TO HELP ME TO ORGANIZE my THOUGHTS - Transmit the information to IN AN INTERESTING MANNER, - and, hopefully, get useful feedback that stimulates new ideas.

CONCLUSIONS WITH RECOMMENDATIONS

- Ban egg taking at Fakaofo and Nukunonu

- Let turtle nest-lay before taking
- ESTABLISH SECTIONS OR ISLETS AS SANCTUARIES
- FOCUS ON MALES
- HEIGHTEN AWARENESS OF DECLINE
- FAKAOFO - CAPTIVE REARING - TAG & RELEASE

INTERESTING ASIDES:

1. GASOLINE line MISSING
2. GASOLINE line DISCONNECTING - BOAT SWAMPING
3. IA SOKULA
4. KIKI RADIO
5. RUGBY
6. ONLY/ HAOLE
7. TAIWAN BOAT - MARRIAGE
8. DEATH - FUNERAL

JOYLETA - Helfrich send-off
mid-1950s

Turtles & people

Purpose of seminar

SEA TURTLES AND THEIR TRADITIONAL USAGE IN TOKELAU

I. SET THE STAGE FOR PACIFIC SEA TURTLES

A. Species
B. Life History
C. Known / Migrations
D. CONSERVATION / problems - need - desire

ESACT CITES WCSTC — EXPERIENCE KEY — Traditional DOESN'T ENDANGER

II. TOKELAU IS. - WHERE ARE THEY?

GEOGRAPHICAL POSITION

A. Who lives there — Way of life
B. Brief historical setting
C. Distance from Hawaii
D. JURISDICTION - GOVERNMENT

III. WHY GO THERE? + (objectives)

ISOLATION — WCSTC — WWF

State of existing knowledge — WODZICKI

LETTERS WRITTEN TO SCHOOL TEACHERS KNEW THERE WERE NOT LARGE NUMBERS

(EXPECTATIONS)

IV. WHO FUNDED IT?

A. WWF — IUCN endorsement
B. New Zealand Gov. - Office for Tokelau Affairs
C. IPA

V. METHODS

A. INFORMANTS — No. of QUESTIONS / list / occurrence of Fono
B. First-hand observations - site surveys
C. Distribute educational materials
D. Polaroid camera — Tape recorder

STUDY METHODS USED

I. Interviews with ELDERS AND MASTER FISHERMEN -
FOR THIS, fortunate that my trip coincided WITH "FONO"/
MOST OF THE KEY PEOPLE FROM EACH ISLAND WERE TOGETHER IN ONE PLACE FOR MEETING.
PHOTOS & DRAWINGS TAKEN TO SHOW.

II. First-hand observations, SITE SURVEYS

BOTH MADE POSSIBLE BY AG & FISH. OFFICER- SEMU CILI

EXAMPLES OF INTERVIEW QUESTIONS -

page 77

Patience

Johannes 1980.

Apia, 11 January 1982.

Dear Mr. Balazs,

When I came back from Fiji from our Chapter meeting I found your letter amongst a pile of mail. I must apologise therefore if my answer is late.

Father Topete is still on holiday, and at the moment in New Zealand. We are expecting him back any time here and so the best thing would be to forward his mail to Samoa. His adress in Samoa is:

Fr. Josefo Topeto
Fetu o le Moana
P.O.Box 532
APIA, Western Samoa.

As far as I know Father Josefo will go back to Nukunonu when he returns here. However it is quite possible that somebody else will be appointed. But up til now no other priest has been assigned to Tokelau. Several priests visited it when there was a boat, in the absence of father Josefo. Just yesterday a boat left and there will be another boat on January 15th, to bring schoolchildren back. It could be that Fr. Josefo will be back before that and will return to Nukunonu on that occasion.

I am sorry that I can not give you more information.

With kind regards, sincerely yours,

C.H.Gevonden s.m.

Acting Regional Superior.

C.H.Gevonden S.M.
P.O.Box 751, CM. Lepea
Apia, Western Samoa.

Fakaofo,
Tokelau.

24 December 1981.

Dear George,

Thanks very much for those photos that you send it over, I was very pleased when I received it.

Nothing much around here, the life still the same when you were here. You don't have to say thanks to me, because I didn't do much for you.
Anyway thanks very much for those photos, I thought that you forget all about it to send some for me, and thanks for the letter.

You asked me for how many turtles have been caught since you left ?. I'm sorry there are nothing seem since you left here. But I hope I keep intought to you when we caugt some turtles.

My best regards to all of your families and you. Keep up the good work. And tell me some goods news about Hawaii.

Merry Christmas and Happy New Year:

Yours faithfully,

Moana. Rimoni. (Miss)

Fakaofo
Tokelau Is.
14th Jan. 82.

Dear George,

Your letter photo + postcards were most welcome, the latter is being used as part of a display at school.

Only one (smallish) green turtle has been caught since you left. A female, about the same size as the male of the pair that you were lucky enough to come across here. The eggs were also retrieved and divided up to each family. Don't know how many clutches, but guess only 1.

John, Pepe and I have very fond memories of your visit - Pepe has only just begun to let me get away without pinning her turtle badge on every morning - and are very glad to have the photo as a reminder of your visit.

Life continues much as usual - not struggling so much with the water supply any more, because we're now into the rainy season. School holidays at the moment. John

is making an umu at our house at the beach. Do you remember the little green roofed fale right on the beach at Tennafala that we were building? We've shifted in there now & it is really pleasant right by the water.

I have been spending most of my time preparing for school next year, answering correspondence and sewing in preparation for our return to NZ in March.

Coming here was so insane from a financial point of view (although not from a personal growth viewpoint) that we find we have to get back to the grind sooner than we'd have liked. Consequently we are leaving & returning to N.Z. in March. We live in Masterton a small (20,000 pop.) town in N.Z's North Island. Not much call for turtle experts in that part of the world but do drop us a line if you find yourself coming down. My brother, at Univ. of Auckland would look after you handsomely & we're not far from Wellington.

Will drop you a line before we leave. Am looking for someone who might be willing to pass on turtle info.

P.T.O.

Look after yourself, and our kind regards to your lovely wife.

All the best,

Elizabeth & John

Pereira

TELEGRAMS: TOKALANI APIA
TELEPHONE: 20 822 20 823

P.O. BOX 865 APIA
WESTERN SAMOA
18/2/4

OFIHA O NA MEA TAU TOKELAU
Office for Tokelau Affairs

16 December 1981

Dr George H.Balazs
Hawaii Institute of Marine Biology
P O box 1346
University of Hawaii,
HAWAII 96744

Dear George,

Thanks for your letter of 23 November 1981

We did have a good time in Tokelau and we helped ourselves to two more turtles after you left. However returning by plane was like sailing across the back of a leather-back due to rough weather.

I shall be looking forward to hearing from you the exact date of your next visit.

Best regards,

Yours sincerely,

(S Uili)
for: Official Secretary

SU/ea

No 7856

Western Samoan Government
CIVIL AVIATION ADMINISTRATION
"EMPLANING FEE"
WS $5.00
Levied under an Amendment to the Civil Aviation Charges Regulation 1978
Passenger Receipt

No 29841 Apia 28 10 19 81

16/10/81 3 $26-00 RN 29706

TIAFAU HOTELS LIMITED

RECEIVED from George Balas +

the sum of Dirty Three

tala Twenty *Sene*

in payment of 4/25

per Makelo

CASH 53-70

CASH CREDIT

ACKNOWLEDGEMENT IS MADE OF RECEIPT OF AMOUNT PRINTED BELOW. THIS HAS BEEN CREDITED TO YOUR ACCOUNT. THANK YOU

DATE 10/30 19 81

NAME Balazs ROOM OR ACCT. NO. 154

DATE SYMBOL AMOUNT

RAINMAKER HOTEL - Pago Pago - Am. Samoa

DO NOT WRITE IN ABOVE SPACE

☐ BILL NOT PRESENTED WITH PAYMENT

☐ PAYMENT TO APPLY ON ACCOUNT

☐ ADVANCE PAYMENT $25-00

SIGNED BY

CONTINENTAL AIR LINES, INC. PASSENGER TICKET AND BAGGAGE CHECK

NAME OF PASSENGER BALAZS/G

005:9200:268:661

VOID

PAGO PAGO

HONOLULU

249.00

TOTAL $249.00

FORM OF PAYMENT CASH

OCT 30 81

IT IS UNLAWFUL TO PURCHASE OR RESELL THIS TICKET FROM/TO ANY ENTITY OTHER THAN CONTINENTAL AIR LINES, INC. OR ITS AUTHORIZED AGENTS

ISSUED BY SOUTH PACIFIC ISLAND AIRWAYS, INC.

PASSENGER TICKET AND BAGGAGE CHECK

NAME OF PASSENGER BALAZS/GEORGE MR

ORIGIN HNL DESTINATION HNL

011 440 0:015:496
SOUTH PACIFIC ISLAND AIRWAYS HONOLULU
CTO F232
Elaine
06 OCT 81

FROM HONOLULU
TO PAGO PAGO
TO APIA
TO PAGO PAGO
TO HONOLULU

FARE 558.00
TOTAL 558.00

FORM OF PAYMENT CK

FARE 558.00

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SOUTH PACIFIC ISLAND AIRWAYS HONOLULU
CTO F232
15 OCT 81
Elaine

NAME OF PASSENGER BALAZS/GEORGE MR DATE OF ISSUE 15 OCT 81

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10-13-81

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Lenga
Lenga

RECEIPT **UNIVERSITY of HAWAII** J 53345

Received from BALAZS DATE 10 / 14 / 1981

Amount one and 30/100— ($ 1.30)

FOR: 5.25 ft laminating @ $.25 per foot

☑ CASH ☐ CHECK ☐ M. O. DEPARTMENT ▶ IRSC

BANK:

By Nakamura

UH FORM (T.O. 10 • REV. 71) ☐70

Drugs

10-13-81

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1⅛ • • • 0.99
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433 • 011

THE PHOTOPLANT
1221 Kapiolani Suite 506
HONOLULU, HAWAII 96814
(808) 524-6222

CUSTOMER'S ORDER NO.	PHONE	DATE 9-28-81 19
NAME BACOZ		
ADDRESS		

CASH	C.O.D.	CHARGE	ON ACCT.	MDSE. RET'D.	PAID OUT		
						7.50	7.50
							.30
							7.80
						TAX	
SOLD BY	RECEIVED BY					TOTAL	

All claims and returned goods MUST be accompanied by this bill. Thank You

FORM 609-2 Available from NEBS Inc., Groton, Mass. 01450

2339

University of Hawaii at Manoa

Hawaii Institute of Marine Biology
P.O.Box 1346 • Coconut Island • Kaneohe, Hawaii 96744
Cable Address: UNIHAW

January 19, 1982

Nancy E. Hammond
Program Administrator
World Wildlife Fund-U.S.
1601 Connecticut Avenue, N.W.
Washington, D.C. 20009

Dear Nancy:

I regret to say that I am somewhat behind in finishing my report to you on the Tokelau Islands expedition. Other pressing research/work obligations, along with a 20-day Christmas vacation with my family in California, have been responsible for this shortcoming. I would therefore like to ask if you will allow me a one month's extention (through February) for the submission of my report. I hope that this will not complicate administrative matters for you in any way. My completed financial report for the project is enclosed with this letter.

I am also sending you a short note and migration map that I was asked to prepare for the South Pacific Commission Fisheries Newsletter. It is due to be published within the next couple months. You may also be interested to learn that in early December I gave a seminar at the NMFS Honolulu Laboratory entitled "Sea Turtles and their traditional usage in the Tokelau Islands". It was well-attended and generated considerable interest.

Best wishes for the New Year.

Sincerely,

George H. Balazs
Assistant Marine Biologist

enclosures

GHB;lb

WORLD WILDLIFE FUND-U.S.

1601 CONNECTICUT AVENUE, N.W.
WASHINGTON, D.C. 20009
CABLE: PANDAFUND TELEX: 64505
TELEPHONE: (202) 387-0800

September 18, 1981

Dr. George H. Balazs
Assistant Marine Biologist
University of Hawaii at Manoa
Hawaii Institute of Marine Biology
P.O. Box 1346
Coconut Island
Kaneohe, Hawaii 96744

Dear George:

I'm enclosing a check in the amount of $785 to cover your expenses to travel to the Tokelau Islands to consult on marine turtle conservation. To verify receipt of the check, please return one signed copy of the enclosed form to my attention and forward a signed copy to our international headquarters in Switzerland. The third copy is for your own records.

A new Board policy now requires all grants to have expiration dates. This grant will cover the period through January 31, 1982. If for any reason your trip should be delayed beyond that time any expenditure of the grant will require reapproval of the grant.

As we discussed we would like to have your report by January 31, 1982. We will also need a financial report with receipts. Any unexpended funds should be returned at that time. A form for financial reports is enclosed.

I'm enclosing a copy of Steve Cornelius's and Doug Robinson's proposal and would very much appreciate having your evaluation of it. We are particularly interested in having your comments on the project's importance to conservation of olive ridleys. If you know Doug and Steve, we would also welcome your assessment of their abilities to conduct the project and to work effectively in Costa Rica. Pending the outcome of the reviews, we are planning to take the proposal to our December 8th Board meeting and would like to have your comments by mid-November. Could I ask you to please copy Hartmut Jungius at IUCN on your comments?

I hope the trip to Tokelau goes well. We are pleased to be able to provide some assistance for the effort and will look forward to receiving your report.

Best regards,

Nancy

Nancy E. Hammond
Program Administrator

cc: Hartmut Jungius, IUCN

FINANCIAL REPORT

1. Financial report for the period October 1981

2. Project number and title Cooperative Marine Turtle Conservation and Assessment in the Tokelau Islands

3. Name and address of Project Leader George H. Balazs
Hawaii Institute of Marine Biology, P.O. Box 1346, Kaneohe, Hawaii 96744

4. Budget expressed in U.S.A.
(currency)

1.0 Budget for the above period	local currency	equivalent in US $
1.1 Total cash available at beginning of period	.....	.....
1.2 Received from WWF Headquarters	.....	.....
1.3 Received direct from National Appeals	.....	$785.
1.4 Total cash available for the period	.....	$785.

2.0 Expenditure for the period	local currency	equivalent in US $
2.1 General administration and promotion	.....	.....
2.2 Subsistence grants	.....	.....
2.3 Living allowances (while in W.Samoa) hotels-food-	in excess	104.70 of r. 25. (no receipts)
2.4 Travel (round trip air fare, Honolulu-Apia)	.....	558.
2.5 Publication costs	.....	.....
2.6 Purchase of major items of equipment (other than vehicles) Please specify.	.....	.....
2.7		
2.8		
2.9		
2.10		
Amount brought forward		$687.70

		local currency	equivalent in US $
	Amount carried forward		$687.70
2.11	Purchase of vehicles/boats/aircraft (please note mileage of vehicle .....)		
2.12	Maintenance		
2.13	Insurance		
2.14	Airport taxi & bus W. Samoa Pago Pago		18 (no receipts) 14
2.15	Airport departure tax (W. Samoa)		3
2.16	Photos, copies and supplies for educational dossiers		65.43
2.17			
2.18			
2.19			
2.20	Total expenditure for the period	in excess	of-$788.13

NOTE: Please enclose all documentary evidence with their vouchers

		local currency	equivalent in US $
3.0	Cash summary		
3.1	Total cash available for the period (1.4)		$785.
3.2	Total expenditure for the period (2.20)	in excess	of- 788.13
3.3	Cash available at end of period (3.1 - 3.2)		-0-

4. Comments:

5. Signature Geoffrey H Baker Date 1-16- 1982

Copies sent to:

00516

RW

1981 OCT 13 PM 6 41

ZCZC WHH184 NZ0310 WSA533
HWHU CO SXAP 034
APIA 34 13 1545

BALAZ UNIHAW
pobox 3830
HONOLULU HI96812

124 YOUR CABLE OF TODAYS DATE REFERS (I) LENGTHS - 58.5 METRES (II) NAME - M.V.FRYSNA (III) NATIONALITY - TONGAN PLEASE NOTE VESSEL DEPARTS APIA SATURDAY 17 OCTOBER REGARDS

LARKINDALE TOKALANI

COL 124 - 58.5 -
17

TELEPHONED:
TO:
BY:
1981 OCT 14 AM 8 51
REPLY-WUI
PHONE-537-6311

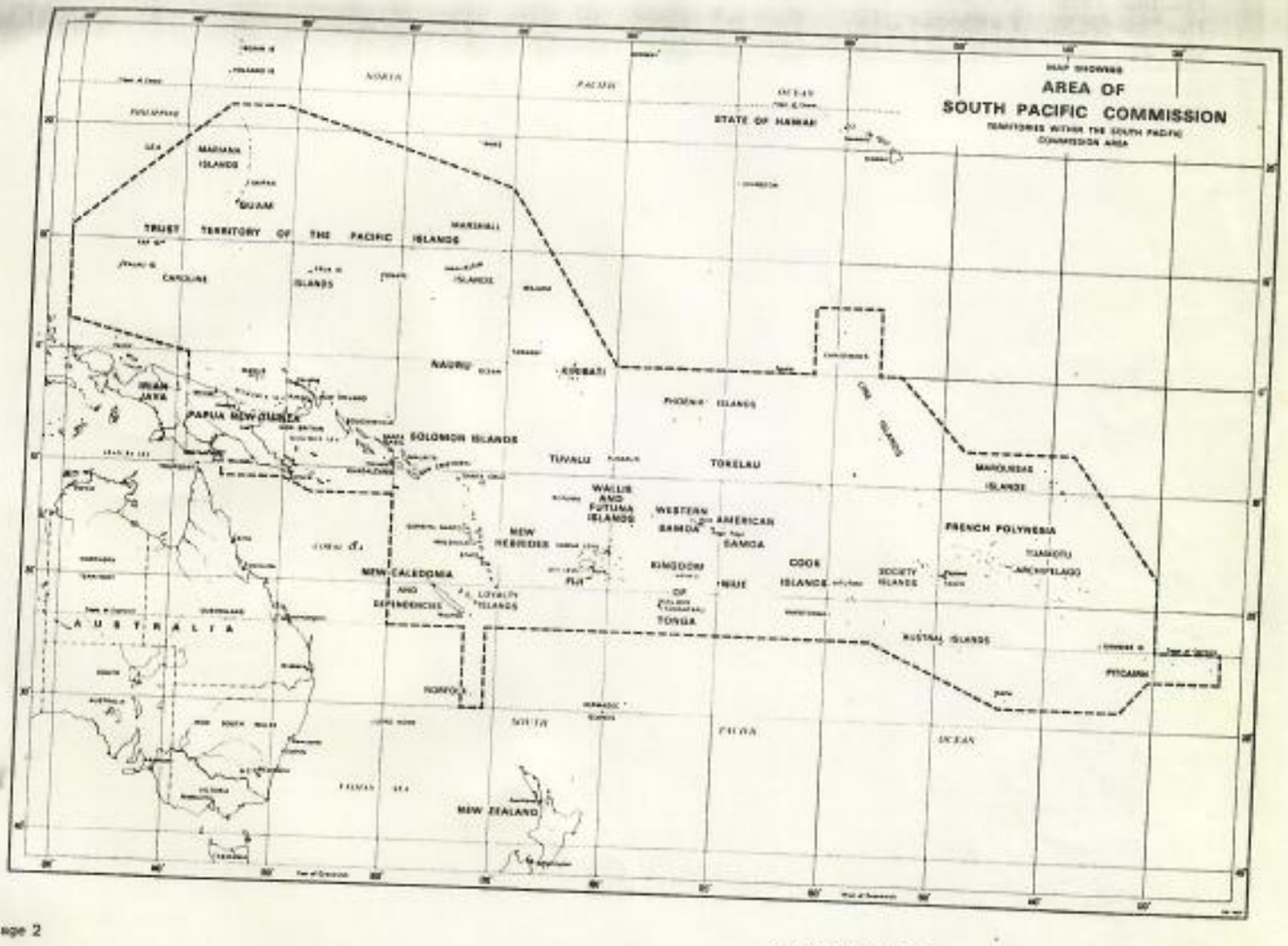
AREA OF
SOUTH PACIFIC COMMISSION
STATE OF HAWAII
MARIANA ISLANDS
GUAM
TRUST TERRITORY OF THE PACIFIC ISLANDS
NAURU
KIRIBATI
PAPUA NEW GUINEA
SOLOMON ISLANDS
TUVALU
TOKELAU
WALLIS AND FUTUNA ISLANDS
WESTERN SAMOA
AMERICAN SAMOA
NEW HEBRIDES
NEW CALEDONIA
FIJI
KINGDOM OF TONGA
NIUE
COOK ISLANDS
SOCIETY ISLANDS
FRENCH POLYNESIA
AUSTRALIA
NORFOLK
NEW ZEALAND

Fig. 1. Northwest tropical Pacific Ocean showing Micronesia as used in this list, enclosed in dashed line, and surrounding islands and archipelagoes.

GEORGE BALAZS
NMFS, HONOLULU

124 YOUR CABLE OF TODAY'S DATE REFERS

I. LENGTH - 58.5METERS.
II. NAME -- MVFRYSNA
III. NATIONALITY - TONGAN

PLEASE NOTE VESSEL DEPARTS APIA SATURDAY, 17 OCTOBER.

REGARDS,

LARKINDALE TOKALANI

ABOVE MESSAGE PHONED OVER FROM WESTERN UNION 10/14/81 - 0900.

jd

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8409 UOFH HR

ADO TI RCA NY UR

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Mary

ZCZC NHU0783 NZS838 WSA908
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BALAZS UNIHAW
HONOLULU

115 PLEASE DISREGARD CABLES OF 23 AND 29 SEPTEMBER
SAILING NOW CONFIRMED TO DEPART APIA 17 OCTOBER.
APOLOGIES FOR UNCERTAINTIES REGARDS
LARKINGDALE TOKALANI

COL 115 23 29 17

NNNN 0040 03 OCT•
8409 UOFH HR
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8409 UOFH HR

ADO TF RCA NY UR

TELEGRAMS: TOKALANI APIA
TELEPHONE: 20 822 20 823

18/2/4

P.O. BOX 865 APIA
WESTERN SAMOA

OFIHA O NA MEA TAU TOKELAU
Office for Tokelau Affairs

29 September 1981

Dr George H.Balazs,
Assistant Marine Biologist,
Hawaii Institute of Marine Biology,
P O Box 1346,
Coconut Island, Kaheohe,
Hawaii 96744, U.S.A.

Dear Dr.Balazs,

Thank you for your letters of 16 and 22 September (which both arrived this morning). As I advised in my telegram earlier today, it is now almost certain that our next voyage to Tokelau will be delayed. I think it unlikely that we will be able to depart Apia before 31 October, but I shall advise you by cable just as soon as I have a definite date available.

You mention in your letter of 16 September Macgregor's "Ethnology of Tokelau Islands". I can confirm that this office certainly has copies, but I am not sure whether copies are available in the three islands of Tokelau. In any event, I would think copies would be very welcome for the island libraries which have recently been established.

With respect to the question in your letters of 22 September, the vessel to be used on the Tokelau run for the next four years is the "Frysna" of Tongan registry. She is 298 tons gross, 135 tons net and will carry up to 12 cabin passengers and 80 deck passengers. The vessel will meet all Solas conditions. We have used the ship for four trips so far this year and have found her adequately comfortable, well maintained and with an extremely able and competent crew.

Please accept my apologies for the delay in the October sailing, but this has occurred because of delays in the vessel's refit which will significantly increase her comfort and suitability for the Tokelau service.

I look forward to meeting you soon.

Yours sincerely,

(J P Larkindale)
Official Secretary

JPL:ea

November 21, 1979

Tenise Atoni
Head Teacher
Atafu Atoll
c/o Office of Tokelau Affairs
P. O. Box 865
Apia, Western Samoa

Dear Tenise Atoni:

The purpose of this letter is to ask for your kind cooperation in my effort to obtain information on the occurrence of sea turtles at Atafu Atoll. I am currently trying to compile information on sea turtles at various islands throughout the Central Pacific Ocean for use in a report to the Marine Turtle Specialist Group of the International Union for Conservation of Nature (IUCN). Your assistance will undoubtedly be of considerable value, as there is virtually no information on this subject for Atafu at the present time.

I am interested in learning about the following points:

1. Do turtles nest and lay eggs at Atafu? If so, how many different kinds of turtles?

2. Where do turtles nest at Atafu? I have enclosed a map of the atoll for you to mark and return to me.

3. Do turtles nest throughout the year, or only during certain months?

4. Approximately how many turtles nest during each night?

5. Do the people of Atafu eat turtles and eggs? Are they an important source of food?

6. Are there any restrictions or laws on the catching of turtles?

I hope that you will be able to help me with this request. I look forward to hearing from you at your earliest convenience. I am also writing similar letters of inquiry to the Head Teachers at Nukunonu and Fakaofo.

Sincerely,

George H. Balazs
Deputy Chairman
IUCN Marine Turtle Specialist Group

GHB:md

Enclosures

November 21, 1979

Hosea Kirifi
Head Teacher
Fakaofo Atoll
c/o Office of Tokelau Affairs
P. O. Box 865
Apia, Western Samoa

Dear Hosea Kirifi:

The purpose of this letter is to ask for your kind cooperation in my effort to obtain information on the occurrence of sea turtles at Fakaofo Atoll. I am currently trying to compile information on sea turtles at various islands throughout the Central Pacific Ocean for use in a report to the Marine Turtle Specialist Group of the International Union for Conservation of Nature (IUCN). Your assistance will undoubtedly be of considerable value, as there is virtually no information on this subject for Fakaofo at the present time.

I am interested in learning about the following points:

1. Do turtles nest and lay eggs at Fakaofo? If so, how many different kinds of turtles?

2. Where do turtles nest at Fakaofo? I have enclosed a map of the atoll for you to mark and return to me.

3. Do turtles nest throughout the year, or only during certain months?

4. Approximately how many turtles nest during each night?

5. Do the people of Fakaofo eat turtles and eggs? Are they an important source of food?

6. Are there any restrictions or laws on the catching of turtles?

I hope that you will be able to help me with this request. I look forward to hearing from you at your earliest convenience. I am also writing similar letters of inquiry to the Head Teachers at Nukunonu and Atafu.

Sincerely,

George H. Balazs
Deputy Chairman, IUCN Marine Turtle
Specialist Group

GHBdd

November 21, 1979

Luciano Perez
Head Teacher
Nukunonu Atoll
c/o Office of Tokelau Affairs
P. O. Box 865
Apia, Western Samoa

Dear Luciano Perez:

The purpose of this letter is to ask for your kind cooperation in my effort to obtain information on the occurrence of sea turtles at' Nukunono Atoll. I am currently trying to compile information on sea turtles at various islands throughout the Central Pacific Ocean for use in a report to the Marine Turtle Specialist Group of the International Union for Conservation of Nature (IUCN). Your assistance will undoubtedly be of considerable value, as there is virtually no information on this subject for Nukunonu at the present time.

I am interested in learning about the following points:

1. Do turtles nest and lay eggs at Nukunonu? If so, how many different kinds of turtles?

2. Where do turtles nest at Nukunonu? I have enclosed a map of the atoll for you to mark and return to me.

3. Do turtles nest throughout the year, or only during certain months?

4. Approximately how many turtles nest during each night?

5. Do the people of Nukunonu eat turtles and eggs? Are they an important source of food?

6. Are there any restrictions or laws on the catching of turtles?

I hope that you will be able to help me with this request. I look forward to hearing from you at your earliest convenience. I am also writing similar letters of inquiry to the Head Teachers at Fakaofo and Atafu.

Sincerely,

George H. Balazs
Deputy Chairman
IUCN, Marine Turtle Specialist Group

GHB:md

Enclosures

TELEGRAMS: TOKALANI APIA
TELEPHONE: 20-822 20-823

P.O. BOX 865 APIA
WESTERN SAMOA

18/2/4

OFIHA O NA MEA TAU TOKELAU
Office for Tokelau Affairs

10 March 1981

Dr George H Balazs
Hawaii Institute of Marine Biology
P O Box 1346
Coconut Island
Kaneohe
Hawaii, 96744
United States of America

Dear Dr Balazs,

Thank you for your letter of 27 February proposing a combination scientific fact finding and sea turtle education visit to Tokelau in September or October this year. The proposition is an attractive one to us as we have become increasingly concerned about the future of the turtle in Tokelau.

However, before I can agree to the visit I must consult various people, including the village councils on the three islands. My recommendation to them will be to welcome your visit, but the final decision to permit visitors to their islands necessarily rests with these councils. I will let you know as soon as possible what their reaction is.

I have also noted that you would prefer to visit Tokelau in October. At present our shipping schedule is very uncertain and I can give you no indication of likely sailing dates. I will advise you as soon as I have some idea of possible departure dates, but this may not be possible for some months yet.

Yours sincerely,

(J P Larkindale)
Official Secretary

JPL:mnc

7/3

TELEGRAMS: TOKALANI APIA
TELEPHONE: 20-822 20-823

P.O. BOX 865 APIA
WESTERN SAMOA

OFIHA O NA MEA TAU TOKELAU

Office for Tokelau Affairs

30 May 1980

Mr George H.Balazs,
Assistant Marine Biologist,
University of Hawaii at Manoa,
P O Box 1346,
Coconut Island,
Kameohe, Hawaii 96744.

Dear Mr Balazs,

Thank you for your letter of May 20 stating the unavailability of financial assistance.

As our stamps for 1980 is now being printed and will be on sale during November 1980, we will consider helping you out by using 1981 as the year to display sea turtles on our stamps.

I cannot promise you at this time as I have to seek authority from my superior but I will always contact you on whatever the outcome will be.

Once again thank you for giving us some ideas of what to be displayed on our stamps.

Regards,

Yours sincerely,

(S. Moala)
for : Official Secretary

SM/ea

TELEGRAMS: TOKALANI APIA
TELEPHONE: 20-822 20-823

P.O. BOX 865 APIA
WESTERN SAMOA

18/2/4

OFIHA O NA MEA TAU TOKELAU
Office for Tokelau Affairs

16 June1981

Dr George H Balazs
Hawaii Institute of Marine Biology
P O Box 1346
Coconut Island
Kaneohe, Hawaii 96744

Dear Dr Balazs,

Further to my letter of 10 March, I can now confirm that we would welcome a visit by you and your colleague to Tokelau later in the year. You note in your letter of 27 February, that you would prefer to travel to Tokelau in October and we do have a vessel tentatively scheduled to leave Apia on 17 October.

I cannot, however, confirm at this stage that this will definitely be the departure date; indeed, it is unlikely that I can confirm the date until at best, some two to three weeks before the scheduled date. I would suggest, therefore, that you tentatively plan on the basis of a 17 October departure but that you check with us around the beginning of that month before committing yourself irrevocably. I regret the uncertainty of this advice, but such are the problems of travelling to Tokelau!

For your information, the tentative schedule for the October sailing is:

Saturday, 17 October	early a.m.	Depart Apia
Sunday, 18 October	0900	Arrive Nukunonu
	1900	Depart Nukunonu
Monday, 19 October	0600	Arrive Atafu
	1900	Depart Atafu
Tuesday, 20 October	0600	Arrive Fakaofo
Wednesday, 21 October		At Fakaofo
Thursday, 22 October	1300	Depart Fakaofo
	1630	Arrive Nukunonu
	1900	Depart Nukunonu
Friday, 23 October	0600	Arrive Atafu
	1000	Depart Atafu
Saturday, 24 October	late afternoon	Arrive Apia

I look forward to receiving in due course, more details about your planned travel and work programmes.

Yours sincerely,

(J P Larkindale)
Official Secretary

TELEGRAMS: TOKALANI APIA
TELEPHONE: 20-822 20-823

P.O. BOX 865 APIA
WESTERN SAMOA

OFIHA O NA MEA TAU TOKELAU
Office for Tokelau Affairs

5th May 1980

Mr George H.Balazs,
University of Hawaii at Manoa,
P O Box 1346,
Coconut Island,
Kaneohe, Hawaii 86744.

Dear Mr Balazs,

Thank you for your letter of April 21 which was refer to me by Mr Hosea Kirifi to look into as it really concerns stamps.

Would you kindly give more information so that we could consider it in more details before we commit ourselves into producing any stamps depicting the turtle.

Would you also inform us on the financial side, i.e. would Tokelau be receiving any aid to help produce the stamps or we do it all by ourselves.

Our new set of stamp issue will be out in November this year and its a sports issue depicting surfing and swimming in Tokelau.

I hope you can supply all the information necessary so that I can take the matter up with my superior before any action is taken.

Hoping to hear from you soonest.

Thanking you.

Yours sincerely,

(S.Moala)
for: Official Secretary

SM/ea

COPY

University of Hawaii at Manoa

Hawaii Institute of Marine Biology
P.O.Box 1346 • Coconut Island • Kaneohe, Hawaii 96744
Cable Address: UNIHAW

February 27, 1981

Mr. John Larkindale
The Official Secretary
Office of Tokelau Affairs
Box 865
Apia, Western Samoa

Dear Mr. Larkindale:

The purpose of this letter is to formally request your consideration of a travel proposal to the Tokelau Islands that would be of mutual benefit to our respective interests and agencies. As a researcher of sea turtles in the Pacific, I would like to obtain first-hand information on the biology and survival status of these animals in the Tokelau Islands. As a traditional native resource of high protein food value, it is imperative that the sea turtles of these small islands be carefully managed so as to prevent their extinction and ensure that they will be perpetuated for the benefit of future generations. This balance between limited use for legitimate human needs, and protection for perpetuation of the species, is indeed a difficult challenge. In many areas of the world the problem has not been adequately addressed in a timely manner. The results have been the permanent loss of whole populations of sea turtles, and a concomitant decline in the nutrition and life style of the native people. The population dynamics and biology of sea turtles are not thoroughly known at the present time, however, current studies indicate that they exhibit a slow growth rate, periodically migrate over long distances, and may not be as long-lived as originally believed. These factors alone present a difficult set of circumstances for the development of rational management programs.

It is my belief that a combination scientific fact-finding and sea turtle education visit to the Tokelau Islands by sea turtle specialists would serve to establish a firm basis for assessing the resource and identifying existing, or potential, management problems. In response to my written inquiries, last year I received preliminary information on sea turtle from school teachers at each of the three islands. During my recent trip to Western Samoa to study the government turtle project at Aleipata, I was able to speak in person with Mr. Hosea Kirifi about

sea turtles in the Tokelau Islands. I suggested my idea for a visit to specifically examine the sea turtle resource and disseminate current information. Mr. Kirifi indicated that this seemed like a very worthwhile endeavor and urged me to bring this matter directly to your attention by written correspondence.

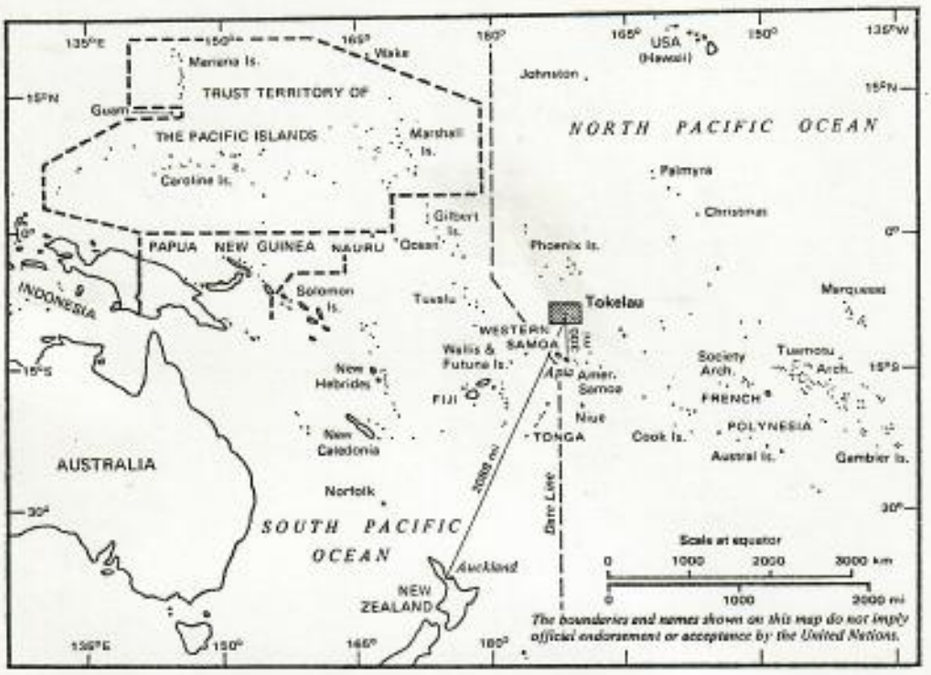
The contribution of your office to this project would consist of round trip passage for two on one of the vessel trips from Apia that are scheduled during September or October of this year. From the information I have thus far obtained, October would be the preferable month, in that turtle nesting is more likely to be taking place. The individual that would accompany me on the proposed trip would be Mr. William Pedro of the Office of Marine Resources in American Samoa. Mr. Pedro is knowledgable about sea turtles, has worked with me effectively on several previous occasions, and is of Tokelau ancestry having lived at Swains Island for two years.

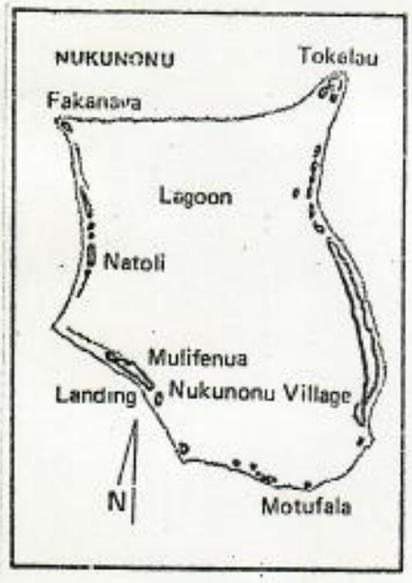
I would greatly appreciate hearing your thoughts on this proposal. I am hopeful that they will be favorable.

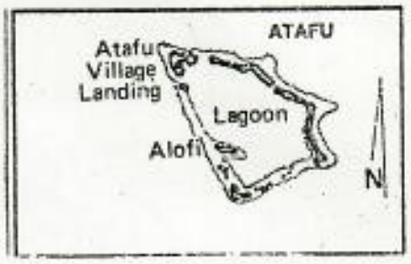
Sincerely,

George H. Balazs
Deputy Chairman
IUCN/SSC Marine Turtle
Specialist Group

mk
cc: Mr. Hosea Kirifi
Mr. William Pedro







MAPS OF TOKELAU

University of Hawaii at Manoa

Hawaii Institute of Marine Biology
P.O.Box 1346 • Coconut Island • Kaneohe, Hawaii 96744
Cable Address: UNIHAW

21 August 1981

Mr. J.P. Larkindale
Official Secretary
Office for Tokelau Affairs
P.O. Box 865 APIA
Western Samoa

Dear Mr. Larkindale:

Thank you for your letter of 16 June 1981. I regret that it has not been possible for me to write to you at an earlier date, however, I want to assure you that I am indeed pleased to learn of your favorable response. The vessel dates for an October visit to Tokelau are well-suited to my schedule. Furthermore, changes that may arise 2-3 weeks prior to the departure date can be accomodated on my part.

There is now a question as to whether or not William Pedro of the Office of Marine Resources in American Samoa will be able to participate in this visit. An expedition to Rose Atoll is being undertaken by his agency during October which may require Mr. Pedro's involvement. I will obtain clarification on this point and contact you again within the next two weeks.

The basic study plan for my visit will be to exchange as much information as possible relating to sea turtles with the residents of each island. If sufficient time is available, I would also like to personally visit some of the sites where turtles nest or reside in nearshore waters.

I appreciate your support of this project and feel confident that it will be of benefit to all parties involved.

Sincerely,

George H. Balazs
Assistant Marine Biologist
and Deputy Chairman
IUCN/SSC Marine Turtle Specialist Group

GHB:lb

University of Hawaii at Manoa

Hawaii Institute of Marine Biology
P.O.Box 1346 • Coconut Island • Kaneohe, Hawaii 96744
Cable Address: UNIHAW

21 August 1981

Mr. Henry Sesepasara, Director
Office of Marine Resources
Government of American Samoa
P.O. Box G
Pago Pago, American Samoa 96799

Dear Henry:

I am writing to ask if a decision has been reached as to whether or not William Pedro will be able to accompany me on a study visit to Tokelau during the period 17-24 October 1981. The basic purpose ofthis visit will be to exchange information on sea turtles with the residents of each of the islands. In addition, if time permits, we will visit key nesting and foraging sites. The Office for Tokelau Affairs will make accomodations available on their vessel at no cost. The background correspondence on this has been sent to William over the past few months, and I assume you are somewhat familiar with the history.

If you agree to send William on this trip, and I hope you will, the cost to your agency would be limited to round-trip air fare to Apia and a few days per diem for use prior to vessel departure and following return to Apia. My own expenses from Honolulu will most likely be covered by a special grant from IUCN/World Wildlife Fund.

I hope to hear from you on this matter in the near future.

Sincerely,

George H. Balazs
Assistant Marine Biologist
and
Fishery Biologist
IPA contract with NMFS

cc
William Pedro
Dick Wass

COOPERATIVE MARINE TURTLE CONSERVATION AND ASSESSMENT IN THE TOKELAU ISLANDS

Proposal Submitted to the

World Wildlife Fund-U.S.

by

George H. Balazs

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BACKGROUND

Tokelau is a group of three remote coral atolls located 500 km from Western Samoa in the South Pacific Ocean. The three atolls, Fakaofo, Nukunonu, and Atafu, have a total land area of 1000 hectares (4 square miles) with about 1600 native inhabitants of Polynesian ancestry. During the 1860's the population was only 200 following visits by Peruvian slave raiders and the introduction of disease. The group is currently administered by New Zealand through the Office for Tokelau Affairs based in Apia, the capital city of Western Samoa. There are no provisions for aircraft transportation to the atolls, but visits from Apia are made five times a year by chartered vessel.

The natural resources of Tokelau are considerably limited. Copra production and the sale of handicrafts are the chief sources of internally generated revenue for use in improving the quality of atoll life. The principal subsistence food crops include coconuts, bananas, breadfruit and taro. Local protein food sources are obtained mainly from the ocean and lagoon environments. Fish constitutes the most important staple, however, shellfish, pigs, chickens, sea turtles and sea birds also contribute to the native diet.

Sea turtles have historically played both a nutritional and cultural role in the Tokelau society. When a turtle is captured, custom still requires that it be shared among the members of the village. Turtles have traditionally been used in feasts and certain religious ceremonies. In addition, fishhooks, tattoo needles, and other implements have been fashioned from turtle shell and bone. In the past, turtles were considered as spirit gods to some families, and therefore were never harmed or eaten by the family members.

The sea turtles of Tokelau and their conservation status are not well known. The available information, as of November 1979, was included in one of the papers that I presented at the World Conference on Sea Turtle Conservation in Washington, D.C. Since that time, I have been able to correspond with school teachers on the atolls and personally visit the Office for Tokelau Affairs during a recent trip to Western Samoa. Discussions carried out with Mr. Hosea Kirifi, Director of Education, indicate that the Tokelau people are very concerned about the survival of their sea turtle resource as the result of decreasing numbers found nesting in recent years. Because of the mutual benefit that could be achieved through a fact-finding visit and information exchange by an outside sea turtle specialist, Mr. Kirifi encouraged me to propose a small cooperative project to the Official Secretary in charge of Tokelau affairs (Mr. J. P. Larkindale). This was subsequently undertaken and has been received with enthusiasm and the necessary endorsement by the Council of Elders on each atoll. The Office for Tokelau Affairs has agreed to sponsor travel costs and associated arrangements from Apia to Tokelau to conduct the sea turtle study visit.

The cooperative project set forth in this proposal will meet objectives identified in the Sea Turtle Conservation Strategy that resulted from the World Conference on Sea Turtle Conservation. The specific Action Projects of the Strategy document that will be addressed are as follows:

Action Project 135 - Maximize efforts to inform local people, particularly children, of the need to conserve sea turtles, emphasizing the need in terms of local cultural values.

Action Project 114 - Make available to less developed countries expertise in designing research programs, training in enforcement and management techniques best suited to the needs of each country.

Action Project 132 - Direct research efforts at subsistence use in various cultures to determine how local beliefs and customs may be incorporated into a conservation program.

Action Project 110 - Undertake or continue surveys in the Eastern Atlantic, Western South Atlantic, Eastern South Pacific, Western Pacific, and South Pacific.

Action Project 66 - Make available to less developed countries expertise in placement, planning, developing, and managing sea turtle parks, preserves, sanctuaries, and reserves suited to the needs of each country.

OBJECTIVES

1. To gather current information on all aspects of sea turtles and their useage in Tokelau through personal interviews with fishermen and the Council of Elders on each atoll.

2. To provide current information to the people of Tokelau on conservation and management problems of sea turtles and the status of knowledge.

3. To ascertain current beliefs and customs that can be used to reinforce traditional sea turtle conservation practices in Tokelau, and possibly at other inhabited but resource-limited atolls in the South Pacific. The ultimate goal would be to achieve a balance between the useage of sea turtles for legitimate human needs, and the survival of sea turtles in sufficient numbers to ensure future viability of the population.

4. To make dossiers of educational and illustrative materials on sea turtles available to the head school teacher on each atoll.

5. To collect firsthand data on sea turtles by conducting, within the time available, surveys of nesting beaches and nearshore feeding and resting areas.

6. To establish a follow-up program of continuing assistance and cooperative information exchange on sea turtles between Hawaii and Tokelau.

PROPOSED WORK

The basic work of this project that is necessary to achieve the stated objectives involves a study visit to the three atolls of Tokelau under the sponsorship of the Office for Tokelau Affairs. This visit will consist of travel from Apia by chartered vessel, which is normally undertaken only five times a year. The visit will last for approximately ten days.

Information that has thus far been obtained indicates that at least green and hawksbill turtles nest more frequently during the months of September through November. Although space aboard the chartered vessel is at a premium, the Office for Tokelau Affairs has tentatively reserved round trip passage for me on the mid-October 1981 voyage in order to take advantage of this nesting pattern. Tropical storms are more likely to occur from December through March, thereby reducing the chances for accomplishing a successful visit during this time period.

The initial results obtained from this study will be prepared into a report for the Office for Tokelau Affairs and the World Wildlife Fund-U.S. Copies of the report will be distributed to other appropriate agencies to stimulate further conservation action.

FUNDING REQUEST

An estimated $500 in travel costs and other forms of cooperative assistance will be provided by the Office for Tokelau Affairs in sponsoring my visit to Tokelau from Western Samoa. The following budget submitted to the World Wildlife Fund-U.S. complements the Tokelau contribution and is essential to the conduction of the project.

Air Fare - Round trip between Honolulu and Western Samoa	$560
Living Expenses in Western Samoa 3 days prior to vessel departure, 2 days following return (5 days total @ $35 per day)	175
Photocopies and Photographs (To assemble educational dossiers on sea turtles)	50
Total Funding Request	$785

Full payment is requested in advance if possible, and should be sent directly to:

George H. Balazs
Hawaii Institute of Marine Biology
P. O. Box 1346
Kaneohe, Hawaii 96744

Telephone (808) 247-6631 or 395-6409

Professional Affiliations of the Applicant:

Hawaii Institute of Marine Biology
University of Hawaii (since 1971)

Member and Deputy Chairman
IUCN/SSC Marine Turtle Specialist Group

President
Hawaii Audubon Society

Currently serving as a visiting researcher (1981-82) at:

Southwest Fisheries Center
Honolulu Laboratory
National Marine Fisheries Service

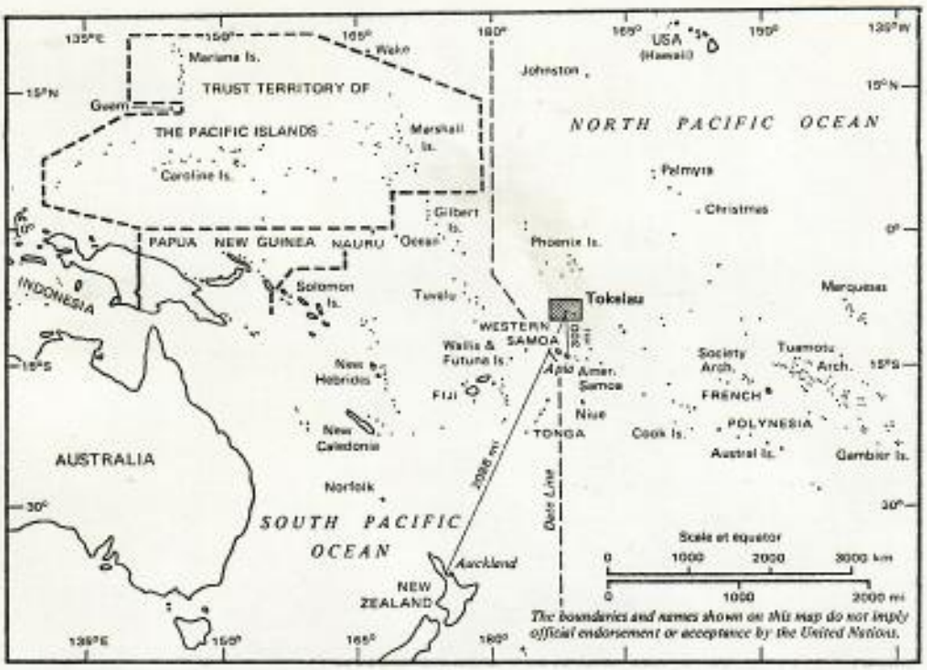
LITERATURE REFERENCES

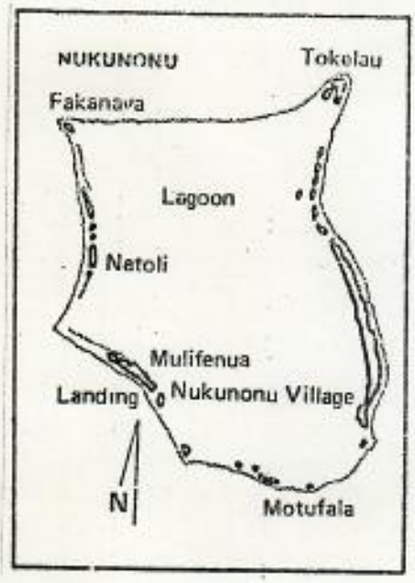
Balazs, G. H. In press. Status of sea turtles in the Central Pacific Ocean. The Biology and Conservation of Sea Turtles, Smithsonian Press.

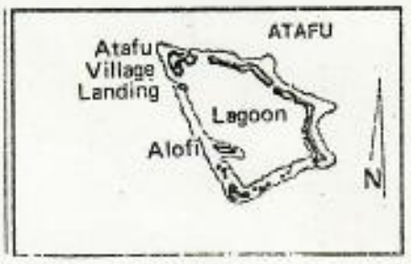
Hooper, A. and J. Huntsman. 1973. A demographic history of the Tokelau Islands. Journal of the Polynesian Soceity, 82, 4: 366-411.

Macgregor, G. 1937. Ethnology of Tokelau Islands. Bernice P. Bishop Museum Bulletin 146, Honolulu, 183 pp.

Wodzicki, K. and M. Laird. 1970. Birds and bird lore in the Tokelau Islands. Notornis, 17, 4: 247-276.







MAPS OF TOKELAU

TELEGRAMS: TOKALANI APIA
TELEPHONE: 20-822 20-823

P.O. BOX 865 APIA
WESTERN SAMOA

18/2/4

OFIHA O NA MEA TAU TOKELAU
Office for Tokelau Affairs

16 June 1981

Dr George H Balazs
Hawaii Institute of Marine Biology
P O Box 1346
Coconut Island
Kaneohe, Hawaii 96744

Dear Dr Balazs,

Further to my letter of 10 March, I can now confirm that we would welcome a visit by you and your colleague to Tokelau later in the year. You note in your letter of 27 February, that you would prefer to travel to Tokelau in October and we do have a vessel tentatively scheduled to leave Apia on 17 October.

I cannot, however, confirm at this stage that this will definitely be the departure date; indeed, it is unlikely that I can confirm the date until at best, some two to three weeks before the scheduled date. I would suggest, therefore, that you tentatively plan on the basis of a 17 October departure but that you check with us around the beginning of that month before committing yourself irrevocably. I regret the uncertainty of this advice, but such are the problems of travelling to Tokelau!

For your information, the tentative schedule for the October sailing is:

Saturday, 17 October	early a.m.	Depart Apia
Sunday, 18 October	0900	Arrive Nukunonu
	1900	Depart Nukunonu
Monday, 19 October	0600	Arrive Atafu
	1900	Depart Atafu
Tuesday, 20 October	0600	Arrive Fakaofo
Wednesday, 21 October		At Fakaofo
Thursday, 22 October	1300	Depart Fakaofo
	1630	Arrive Nukunonu
	1900	Depart Nukunonu
Friday, 23 October	0600	Arrive Atafu
	1000	Depart Atafu
Saturday, 24 October	late afternoon	Arrive Apia

I look forward to receiving in due course, more details about your planned travel and work programmes.

Yours sincerely,

(J P Larkindale)
Official Secretary