

19

1982 HIMB

INCOMING  
G.H. BALAZS LETTERS



THE UNIVERSITY OF TEXAS AT AUSTIN  
TEXAS MEMORIAL MUSEUM  
AUSTIN, TEXAS 78705

2400 Trinity  
Area Code: 512 471-1604

Dr. G. Balazs,  
Univ. of Hawaii at Manoa,  
Hawaii Institute of Marine Biology,  
P.O. box 1346,  
Coconut Island,  
Kaneohe, Hawaii 96744

30 July 1982

Dear George,

Hope this letter finds you well. For myself, I am in the final throes of writing up my Galápagos data; I estimate another 3-4 months before the manuscript is ready for review. It will be a monograph (monologue?) of Galapagos sea turtles and will be published by the Texas Memorial Museum. I have two questions. First of all would you mind acting as a reviewer for my manuscript? Second, do you know if any of Kim Clifton's Mexican green turtle work is available yet, and if so could you send me a copy(ies)? In fact, if you have an address, I could also write to him directly. By the way, I submitted my migration<sup>paper</sup> to Copeia where it was received with split reviews (one yes one no) with the result that it was rejected. I haven't gotten around to revising it yet, but will do before this current manuscript is ready. Good luck with your work, and hang in there,

Cheers,

  
Derek Green



SECRETARIA DE ESTADO  
EN EL DESPACHO DE

**RECURSOS NATURALES**

DIRECCION GENERAL DE RECURSOS  
NATURALES RENOVABLES

Tegucigalpa, D. C., República de Honduras, C. A.

*Synopsis sent*

NOTA: DGRNR 273-82

13 de Julio de 1982

MR. JACK B. WOODY  
Fish and Wildlife Service  
Post Office Box 1306  
ALBUQUERQUE, NEW MEXICO 87103

Dear Mr. Woody:

I was very pleased to receive your letter of June 8, 1982.

Concerning the best way to send us the tags and pliers is by mail to following address "DIRECCION GENERAL DE RECURSOS NATURALES RENOVABLES" Barrio Guacerique, Tegucigalpa, D.C., HONDURAS, C.A.

In order to speed up customs, please send us a detailed on tags and pliers are to recive to get advanced papers to pick them up as soon as they get here.

We are interested in obtaining periodically any information on sea -- turtle management.

We sincerely thank your interest and help.

Sincerely,

*Jesus Abastida*  
DR. JESUS ABASTIDA  
DIRECTOR GENERAL



/als

c.c.: Archivo

Depto. I. Aplicada



7/26/82

Dear George:

Just a short note to say the conservation manual for the turtle symposium researchers has been printed in San Jose, C.R. Robert Tautford, the ITOCARIBE secretary told me last week he will be packaging them up to send here - I'll will then distribute them (with a copy to you). If you need a few more dissection manuals for deserving biologists, just let me know - I sent you a couple more last week.

Well, Inconel-625 could be available if someone had the up-front bucks to stand the pain of the charges for the first order. I assume we would be home free after NBT paid for their new press. The most I was ever able to budget for new tags was about



25K. Then, I lost that when it received a low priority rating back in '79. Maybe we could get FWS (Jack Woody) to kick in some bucks for an attempt to make a joint purchase order in FY 83-84. We'll see what happens.

Another document you should be receiving for comments is the draft Recovery Plan. We are going to make final changes to it at Mevini this week. Needs polishing and some significant corrections (especially to foreign status etc for some species) If you didn't get a copy I'll see that you do. Just drop a note.

I don't think I ever got to comment on your response to SWFC proposal

for a "public hearing" on Hawaiian green turtles. Your critique was excellent, as per usual. Sound arguments, lots of detail. What happened? Or, need I ask?

We had a problem over Necker Island this past year(s) concerning the USN using it for a gunnery range. A compromise was reached in Washington office — no jeopardy provided Navy institutes conservation measures requested and a monthly survey, among other things. Pritchard heard that they didn't do this (he was their consultant) so he blew the whistle! We (region) are now investigating. Will see what happens.

I guess you are back at the institute now and no longer an IPA with the Feds.



I hope you were able to pick up some of the ins and outs of the government that will improve your effectiveness as a turtle conservationist. It is sometimes frustrating but sometimes surprisingly rewarding. Anyway, I guess you back in your "civilian" role once again. I know I was surprised at the stance taken by the lab director (NMFS) when you came on board. Prior to that it was pretty much the other way. So, everyone is educatable — keep up the good work.

Nothing else comes to mind, but will as soon as I mail this! No word from Washington regarding a status review for sea turtles yet.

Carr is still active as ever, flying all about remote beaches in the Bahamas and going out on cruises looking for "lost year" turtles, his main focus now. I was to survey Colombia's Caribbean coast last



month during peak of chelonid nesting. my counterpart at INVEMAR postponed the meeting/survey. I hope to go any day now. NMFS in the southeast is facing a 2/3 cut in MM & ES program funds for FY 83. Most of Pascagoula's activities and possibly Galveston's too, would be considered low priority (resource surveys, satellite tracking, head starting) and Population dynamics will be high priority. Most of our bucks went to Pascagoula early in the program to develop TED, so it's only equitable that the priorities shift... plus this info is necessary for intelligent status review studies.

Enclosed is a unpublished MS on incidental catch in Yemen. Please do not circulate - the authors have submitted to Biological Conservation for publication (or will be shortly). I reviewed it, and included appropriate references to published turtle accounts (Hirth et al) (over)

and revised it for Biol. Cons.  
for that area. If you are still in  
communication with Dr. Burchard,  
you might want to let him know  
about this information and that it  
will be out in print (I'll send you  
a preprint when John Watson lets  
me... after acceptance; this should be  
appropriate).

Hope to see you sometime, George.  
What ever happened to the SSC/sea  
turtle group meeting plans? I  
will be traveling quite a bit this  
fall-winter (San Jose, C.R. and Bahamas/Colombia)  
and then should be static after the  
July '83 symposium.

Keep in touch; Best ever,  
Jimmy



COLLEGE OF ARTS AND SCIENCES  
DEPARTMENT OF ZOOLOGY

20 July 1982

Dear George,

No, we're not dead! just tied up. Sorry for not writing for so long. Hope you had a good trip to the FFS! Thanks for the telemetry reprint, and for all the news items.

Karen told me she wrote you the outcome of the Groombridge saga. What an ordeal! As it turned out, I spent about 3 hours on the phone with Brian—reading my (+AC's + KB's) comments to him on the last 2 drafts. And Dr. Carr spent at least 1½ hrs. haggling about the statuses. This was before the issue broke via Wayne. Luckily, we caught Wayne for a short meeting the day before he flew to Europe, and we discussed the whole mess. I guess, through Gen Lucas, or someone, they came to admit the inadequacy of IUCN's definitions. So, supposedly, there will be no downlistings. There was also a slight publication delay, so perhaps Brian got some comments in time for revisions—i.e. Yours on Hawaii. You can be sure we lodged a very heavy complaint regarding the lack of review time.



Wayne didn't think that was such a big deal - unfortunately. The extension <sup>~ 10 days - 2 wks</sup> was only an act of fate, not a change caused by our complaints!

I thought the ~~leatherback~~ loggerhead draft was really a lightweight - especially in terms of biological info. This is partly not Brian's fault. Largely, actually. The important data remain unpublished, or in difficult-to-get sources like Ehrhart's NASA tomes. It is Brian's fault for not asking him to send the info, I guess. It's a damn shame, though, that the meatiest data was not included. I sent the draft to Jon, and asked him to send comments to Brian, but he was in the field for a week I know, and Brian's deadline so near that Jon might have despaired at doing anything. I also gave him <sup>half-a-dozen</sup> additional references that he should have included.

What do you mean - a Costa Rica turtle meeting?

① Sounds great! I thought it was your brainchild!

We need to get out notices right away, even if we don't have the particulars, so that members can put it into their budget requests. I'm

② afraid that Colin is still thinking that there will be an Australian meeting. I hope we can smooth that out promptly on Dr. Cain's



return. He is in North Carolina<sup>2</sup> on vacation.

Really, George, there's more going on here than ever, and I despair at trying to keep everything on a perfect course. The CCC is changing radically - expanding into many new divisions, seeking outside funding + masons (for the first time). We just got the Tortuguero crew off on the 8<sup>th</sup> of July. That's always an immense job, but this year it was complicated by thousands of dollars worth of equipment requests by the <sup>C.R.</sup> National Park, and all the materials for the information booth being designed + constructed this summer by David + Peggy Carr in Tort. village. And we have horrendous poaching problems, already! This is a new thing at Tort - egg raiding on a massive scale, to supply inland markets. This is partly a result of better control of Pacific nesting beaches in recent years. The CCC is forking out \$10,000 for the Park System to ensure protection of the eggs.

We are having the crew do the flipper width measurements. We discussed it at length with the guy who is in charge this year, and showed him where to measure on a post-hatchling



The only thing was that the measurement seemed a bit diagonal across the flipper axis, <sup>at least</sup> in that size turtle. Perhaps, that straightens out with age? Anyway, we are having him do 100 turtles, and to get notch-to-notch carapace measurements <sub>(plus max. length)</sub> on them (and 20 w/ weights). We will talk with him soon to hear how it's going. Please let me

know - does the measurement fall perpendicular to the axis of the flipper on Hawaiian greens?

Also, Dr. Carr thinks the flipper should be placed on a board and laid flat to get the most accurate measurement. Were you doing that? I'm a bit worried about our Tort. manager for this year.

I had 1 day to teach him how to construct our permanent log books, and he didn't seem to be very perceptive. I'm praying he's smarter than he seems. I know <sup>that</sup> he knows how to do the field work, and record the data. It's just the transferral + re-organization into systematic books that I worry about. I could have a monumental job if he screws up.

I am enclosing some materials I've been circulating around Washington describing the Panama pipeline issue. Perhaps you know something about it already. Actually, this is the reason I



haven't been doing much <sup>3</sup> corresponding on other issues.  
I am very deeply troubled by this whole thing -  
by the meeting of beautiful tropical wilderness areas  
and the unstoppable monster oil. It makes me sad to  
have ever seen this jewel of a place. I've always  
said it's my favorite place on the face of the earth.  
And now, it is almost sure to be lost. And the  
whole culture there will change, with the opening up  
of the province by roads, bigger airports, lodging  
facilities, etc. Anyway, I'm sending you the  
info to make you aware of the situation. I'm  
working with Chuck Carr at NYZS, Michael  
Wright (WWF-US), Colm Phipps, some Costa Rica  
<sup>conserv.</sup> organizations, and a score of others to try to  
get a sympathetic board member of Exxon,  
Arco or Sohio to give us a chance to improve  
the matter. There's no way to stop it - they begin  
pumping oil at the end of August. Also, Roxana  
Sayre of Audubon is going to put a note on it in  
<sup>(features column)</sup>  
Audubon, and I will hear this week of Sports illust.  
will carry it in their Scorecard. We're trying to  
<sup>stop short of</sup>  
~~reserve~~ a major picture article at this time, to give  
us a bit of ammunition. Chuck thinks we can  
go to the NY Times, if we have to. The Northville



Industries representatives have been totally useless. They say that envr. studies (being conducted by Panama!) will be finished in "a year or so!" And they swear they haven't gotten around to contingency planning yet. Maybe in August. It is frustrating, because no one is really responsible, exactly. They all pass the buck.

On to other things. We got a dreadful IUCN proposal for Indonesia - Jungius, Sahlm, + ? . I reviewed it for AC, recommended that the characters be hung at dawn. He hasn't sent in his reply yet. It's really astounding; I can't believe they come up with that. I don't know what their objectives are - making bucks on treaties!!!

That was an interesting letter from Soames Sumner - although discouraging. Degradation of benthic habitats via trawls of all types is undoubtedly a tremendous problem we are all ignoring at the present, it's so hard to study, too. I know it's happening around Fla. Yes, I'm sure Limpis would appreciate a copy. I don't think any of our mail was lost. We haven't been sending much. Lynda is gone - (Thank god) - to work for her husband. We're trying to get a new sec. by 9 August.

Maziwi - That's Jack Frazer's bakerywick. He just published a paper on tag refurds from there. Maybe, he can interpret that article. Could the have lost their bearings? Seems strange!



4

This is getting too long! Just wanted to say that I would still love to get the slide of tortoiseshell jewelry, stuffed turtles, etc. Did I tell you what it was for? Among other things, possibly for inclusion in an article in the Trinidad Naturalist on trade in sea turtles in the Eastern Caribbean. (eventually, the tourist, <sup>months</sup>) I am working w/ D. Mack + his boss Linda McMahon of Traffic/UST on it.

Yes, Parmenter appears to be dead wood. We've never had a single word from him. Maybe, we should scratch him next time around?

Well, I put Peter on the plane for Africa once again. He will be studying Olduvai reptiles + lizards (Sorisils) at the Nairobi Museum. 6 weeks! Miss him!

Hope all goes well out there. Are you still working for NMFS? What's the story?

I'll try to pick up other loose ends in a future letter. Sorry for the hiatus.

Hasta,  
Anne



SINCE NINETEEN-HUNDRED



"THE VOICE OF CONSERVATION"

July 21, 1982

Dr. F. Wayne King, Director  
The Florida State Museum  
Museum Road  
University of Florida  
Gainesville, Florida 32611

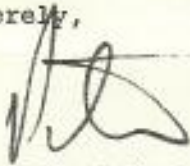
Dear Wayne:

I have read your recent letter very carefully, and I can only conclude that it represents a spirited defense to an attack that had not been made. I never made any remarks at all about the Crocodile Group, whose finances you discussed in such detail; and I never proposed that IUCN Specialist Group meeting expenses should be met by IUCN, which seems to be a thought that you were attributing to me. Moreover, I did not ever say that the museum paid for your travel expenses, though you seem exceptionally defensive on this point. Indeed I never expressed any interest in who paid for your attendance at the various meetings you go to (and indeed your letter leaves this topic as vague as it was before). All that happened is that I responded to a letter from Archie about the possibility of another Turtle Group meeting and how to fund it; he conveyed your suggestion that Third-world members could pay their own expenses by establishing a savings account, and I commented (to him-not publicly) that I thought this suggestion was a little insensitive, especially since you appeared to have assured funding for your own attendance at meetings. I still think so. To state it concretely, I do not think it at all appropriate, for example, to ask Satish Bhaskar to set aside some rupees from his salary each month so he can fly to some distant country and brief other interested parties on his work - especially since such meetings are also attended by people with ten times his salary that are not paying their own expenses. I did not imply that IUCN should automatically pay for such people; but I believe that a much more viable policy would be for IUCN to use its prestige and influence to try and get local sources (not necessarily excluding local WWF appeals) to pay for them; or to pursue what Realtors would call "creative financing", getting money however it can be obtained for the meeting in question.

I hope I have made my thoughts clear now. I am sure my feelings on the matter are closely along the lines of IUCN policy. Unfortunately, the guidelines for specialist groups of which George Balazs kindly sent me a copy only discuss Chairmen's responsibilities for finding group travel funds, not those of individual members.

It is sad that our relationship, once good, degenerated so rapidly to the status of petty sniping following my initiation of certain negotiations with the Cayman Turtle Farm. Let me know if and when you are willing to call it quits. Episodes such as occurred several times in New Delhi, or at the Washington Turtle Meeting, do neither of us much good.

Sincerely,



Peter C.H. Pritchard, Ph. D.  
Vice President - Science and Research

CC: George Balazs  
Archie Carr

PCHP/rmp

Center for  
Environmental  
Education

July 19, 1982

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

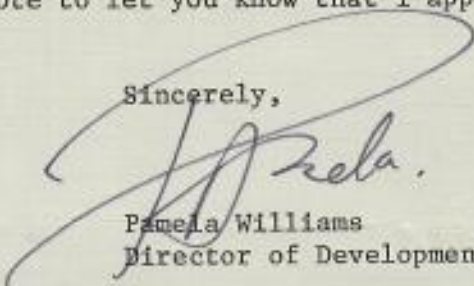
Dearest George,

Thank you ever so much for thinking once again of those of us at the Center. Your note was like a breath of fresh air! All of us appreciate and admire your concern for endangered animals.

Personally, I just returned from a beautiful albeit brief vacation, my first in almost two years! I went sailing in the waters around Cape Cod, and hiking near the Penobscot Bay in Maine. Never in my life have I seen mosquitoes like they have in Maine. The birds must be well fed there.

Well, just a short note to let you know that I appreciate your thoughtful efforts.

Sincerely,



Pamela Williams  
Director of Development

PJW/bjd





George H. Balazs  
H.I.M.B.  
Box 1346  
Kaneohe  
HAWAII 96744

8.7.82

Dear George:

Thank you for your letter of October 1981. By way of Australia it reached me yesterday, hence the delay.

Your letter begs a number of serious and complex answers, which at present I am only superficially qualified to answer, as I have been out of the Marine Park business for more than two years. Still my feelings are running high on the subject. The reason is that the Marine Park is an enormous compromise on what one would really like to see. But briefly in answer to your questions I have the following comments:

1. Reduction of predators on the reefs is caused by both commercial and sport fishing. Catches have dropped roughly to one third of the yield on pristine fishing grounds. The mean size of the fished species has diminished - a trend that for all I know is continuing. The populations of some of the largest predators has been decimated if one is to pay any attention to the old hands who have been visiting the reef for years - even if judged conservatively, their estimates of the reductions of such species as E. tauvina and P. lanceolatus have been disastrous. The reductions in the numbers of large predators has undoubtedly shifted the natural equilibrium of the reef systems most frequently fished, that is, in relation to the unfished reefs in similar locations. However, this hypothesis has not been proven as there have been no baseline studies undertaken on these effects.
2. While both types of fishing have a profound effect on the reefs ecosystem, sport fishing on inshore reefs is more damaging than commercial - simply for the fact that the commercial fisherman cannot afford to hang around if the population of fished species is down.
3. Commercial trawling in the Marine Park is for Scallops, principally, although I think that the shrimp industry also encroached on the Park boundaries. The really damaging aspect of this type of fishing is the enormous loss of juveniles of certain reef species of fishes which are dragged up in the nets, and then, to make matters worse discarded as trash fish. Many once common species have been already hard hit by this probable factor. Secondly, there is an enormous disruption of the benthic fauna the effects on which are completely unknown. But one can only assume that once again the balance of the status quo before we started this activity has been severely affected - and that the benthic community is correspondingly depaupered and many inter-reefal benthic predators adversely affected.
4. Do adequate controls exist? Exactly for what? Well, certainly it is a lot better than before when there were no controls. But we have so much to learn about the very basics of reef ecology. If I was allowed to just guess, I would say that the rotational zoning policies of the Marine Park have a fair chance at retaining the populations of fished species at a level that sport and commercial fishing will still be able to continue. However, I also would say that the reefs will never be the same again. A new order is developing,



and we will have to see if it stabilizes - whatever that may mean , as we have no baseline data.]

The questions that really concern me, and to which we may never have the answers are; Is there a tendency towards local extinctions of certain species? Almost certainly there are, but we will probably never know. The removal of members of the top of the foodweb, we know causes a reduction in the variety of species inhabiting a reef - a simplification of the biota. This is what I find so sad - and it will never be the same again.

Lastly, may I say that I believe that the greatest longterm danger to the reef is simply the effects of sedimentation as a result of the deforestation and bad soil management problems throughout Queensland. This has already begun to affect some of the inshore reefs and the visibility of the water even 40-50 miles from shore has deteriorated on average as much as 100% from the situations that existed only 20 years ago. But still those are just top of the head figures from the old timers - same problem- no baseline data. However, I do think that this is the number one problem on the Great Barrier Reef at the present. Particularly, as it is being almost totally ignored. The results are both insidious in their appearance as they are devastating.

I would like to continue along further with these ideas, but cannot spare the time !

Thank you for your interest. If you have the need for more detailed information you might try and extract it from the GBRMPA - with that I can only wish you the very best of luck.

I hope that this has been of some use or interest to you,

Sincerely,

Soames Summerhays





21 July 1982.

Dear George,

Accept couple of items for your info.  
I added my plug for Hawaii greases in  
my review of the mydas sheets. The  
carella clearly must be worked on some  
more.

Have you heard any more about  
meeting in Austral-Asia this fall?

I am finally writing!

Final drafts of "Adult sex ratios Corydoras"  
"Feeding biology C. mydas Oman"  
"Loggerheads Oman: Population size"  
are ready for public view - I will send you  
separately -

Regards  
Pewen.



MUSEUM OF COMPARATIVE ZOOLOGY

The Agassiz Museum



HARVARD UNIVERSITY · CAMBRIDGE, MASSACHUSETTS 02138 · TEL. 617 495-2466

21 July 1982

Dr. Brian Groombridge,  
Conservation Monitoring Centre,  
219 c Huntington *Ed.*  
Cambridge,

Dear Brian,

I received the loggerhead and green drafts just a few days after your deadline. However I assume you are behind schedule (isnt everyone?) and offer the following comments:

C. mydas.

Its basically fine except the points I mention below. The discussion of the farming issue is well done, a tricky issue fairly put. The only real problem is the status. I have heard unofficially that the turtles will retain their present endangered status (Endangered). I think this is correct for all species and particularly C. mydas. On the basis of the data you present the majority of populations about which information exists are declining due to current practices (39/65 in your account). The only well studied population, Tortugero, is predicted to go extinct if present pressures continue, Bjorndal 1980 Copeia #3, The 'mean condition' of the known populations is unambiguously endangered. Perhaps there is a case for allowing a few large unexploited populations, eg Australia, Oman, Reunion to be merely vulnerable but the onus is on the proposer of such a move to support it with new information. In all cases our present knowledge is insufficient to make this determination. In particular the Hawaian pop. should be endangered- ask George Balazs.

1 Distribution; would it be possible to refer to, or reproduce Sternbergs map as a way of succinctly summarising distribution. Your draft is misleading in that it does not clearly differentiate large small and trivial nesting aggregations. (Although you adequately put this point in the section on population).

2 Growth rate; you are unnecessarily tentative on this point. Limpus and Walter 1980 and Bjorndal (PhD thesis) concur with Balazs estimate of slow wild growth rate.

3 Population Nicaragua; Is it really 'the largest in the world?' what about Australia? Brazil? the Persian Gulf? I dont know. How about alternative wording...." a very large" or "one of the largest" .

4 Lost "year" period. Any data to support the actual length of the pelagic juvenile period?

Caretta caretta

1. The correct citation for all the data on the Masirah loggerhead population is Ross and Barwani (your #47) NOT Frazier (Your 20). All of Jacks mention of this population is referred to me either pers comm or in press. As Jack does not have any first hand information on this population it is incorrect to ascribe the data to him. The information is all from my WWF study and I would like both the credit and the blame if any of it is incorrect.

2. Cape Verde Islands. I have a letter from H.H. Scleich of Univ.-Inst.



Univ.- Inst. fur Paleontology u. historische Geologie, Munich with a picture of a loggerhead caught while nesting on Boa vista in 1977. He mentions 1000 turtles killed /yr but there is some confusion in his account between *C. mydas*, *Caretta* and *Eretmochelys*.

\* 3. Madeira. Check spelling in your draft- are these nesting or non nesting?

4. Habitat and Ecology. Sexual maturity in four years- nonsense! Hughes original data in his 1974 . Investigational reports of the Oceanographic Institute of Durban. #2 fig 8. indicates a 8 year minimum period to maturity under captive conditions. He discusses the probability that variable diet and temperature in the wild would impose at least a two year uncertainty on this estimate. He does say that the juvenile stage ( up to 60 cm. ) terminates at four years.

\*\*

5. Food. Hughes 1974 above tables 6-8 have good data.

6. Renesting frequency within a season. nests/ female

average	4.5	Tongaland Hughes 1974
	2.5	Georgia Richardson and Richardson in press
	2.4	Florida Davis and Witing 1971
	2.5	Cape Romaine Talbert et al pers comm.
	2.04	Masirah Ross unpublished.

Note a. average nests / female is much lower than the maximum observed.  
b. variation between different populations.

7. There is a lot of recent stuff on distribution of subadults and life history data by Stoneburner, Talbert, and Richardson that should be mentioned.

The loggerhead draft is clearly a rough job and contains sufficient errors to be unsuitable for publication in its present form. I hope that pressures to get this job finished do not lead to hasty presentation of this important material. The other sheets are so good. I think this one should be also. I look forward to getting another draft of the loggerhead sheets for review.

Sincerely,

Perran Ross.

\*\* If Hughes has different data in the 1976 paper could you send me a copy. I am unable to obtain it here. ( An embarrassing first for the MCZ library)





Evelyn Simak  
Hofbrunnstr. 110  
D - 8000 München II  
W. - Germany.

see Bantl 1962  
Ann Acad Bras Cienc. <sup>34</sup>  
405-409.  
Observações sobre a  
Tartaruga Marinha, *Chelonia*  
feitas na Ilha de Trindade

Munich, July 15, 1982

Dear Mr. Ross,

On his last visit to Germany Mr. Helmut Sick, leading ornithologist of Brazil, informed me, that on the island Trindade a nesting site for sea-turtles is endangered by plans to build an airport there. Can you confirm this information?

Unfortunately Mr. Sick did not know the sea-turtle genera concerned. I am a member of a German turtle group and would like to publish a short article about the Trindade-problem. I would be very grateful for more information.

20°31'S 29°19'W.

*Carydas*

Yours sincerely  
Evelyn Simak.



TASK FORCE PAWIKAN  
Parks and Wildlife Nature Center  
Quezon Boulevard Extension  
Liliman, Quezon City  
Metro Manila, Philippines



Republic of the Philippines

MINISTRY OF  
NATURAL RESOURCES

June 18, 1982

Dr. George H. Balazs  
Hawaii Institute of Marine Biology  
Kaneohe, Hawaii

Dear Sir:

The Task Force Pawikan would greatly appreciate your assistance in the form of suggestions or ideas on the non-injurious capture of marine turtles inhabiting shallow coastal areas.

In line with its commitment of saving the diminishing marine turtle populations of the Philippines, the Task Force Pawikan is preparing a tagging program to trace the movements of marine turtles throughout the archipelago. We have read with interest your articles which mention the capture of marine turtles through the use of tangle nets and scoop nets. We would like to adopt similar methods which allow the tagging of turtles in their feeding grounds. We need the details of the procedures.

We would greatly appreciate any information which you can share.

Thank you.

Very truly yours,

*Cesar Z. Luna*  
Cesar Z. Luna  
Biologist  
Task Force Pawikan

*need -  
focus on breeding locations*

*cc  
Ed Gomez  
need business  
address on  
envelope*

*copy of tangle-net report at HIMB*

Dietrich H. H. Kühlmann

Dipl.-Biol. Dr. rer. nat.

3 Slides  
returned

30.6.1982

Dear Dr. Balazs,

This will acknowledge receipt of your article entitled

Sea Turtles of the World - a marvellous and  
instructive illustration. - Very sorry, that your  
nice slides are not printed in my book, because  
the numerous "competitors" by 6x6cm-slides.

Thank you kindly. I should glad to receive also in future your works.

Very sincerely yours  
D. H. H. Kühlmann





Dietrich H. H. Kühlmann

Diplom-Biologe, Dr. rer. nat.  
Zoologisches Museum  
der Humboldt-Universität  
Invalidenstraße 43, 104 Berlin  
GDR

Dr. G.H. Balazs,  
University of Hawaii  
Hawaii Inst. of Mar. Biol.  
P.O.Box 1346

Kaneohe, Hawaii 96744

USA

MUSEUM OF COMPARATIVE ZOOLOGY

The Agassiz Museum



HARVARD UNIVERSITY · CAMBRIDGE, MASSACHUSETTS 02138 · TEL. 617 495-2466

12 July 1982

Dear George,

A combined answer to your last couple of packages

- 1) Conway article on endangered species - seems to express the right sentiments but it is rather dated (1970) and not specific enough to help in our present dilemma. still nice to know the problem is not new.
- 2) Burchard - Saudi Arabia - If you read my 1979 review of Arabian turtles you will see Burchard's work referenced as the only work in Saudi - but he is clearly unaware of my work in Oman. I will write to him and send a copy of my articles. Reading between the lines it sounds like he is in some difficulties with the Saudi bureaucracy. (although no more than is usual in that country) don't be surprised about endless mail delays etc.
- 3) A solution to the status in Red Data sheet problem may be at hand. I heard from Wayne that a compromise has been reached where all the turtles retain their present status (endangered) but include comments in the text concerning the possibility of re-evaluation (over)



Obviously this leaves a great deal of leeway for the computers to twist things one way or another - but its a start. Wayne was also of the opinion that Brian Groombridge is a young chap (no one seems sure if he has a Ph.D.?) and a lot of what we are seeing is juvenile insecurity. a further path to salvation ~~could~~ involves Tony Mance's impending resignation as Director of the Conservation Monitoring Centre for family reasons. Wayne has invited me to apply for that position (!) There are a number of uncertainties.

I am unsure about becoming a manager rather than a field worker and re-location to Cambridge has little attraction. My girlfriend has just been accepted to graduate school at M-I.T. and is unlikely to want to move. Still the position is clearly a step up and out for me and I have applied in good faith. Clearly with a good guy (me) in the hot seat there would be no more nonsense from computers. I would appreciate a) your support for this position b) any info you may have about internal structure and politics in IUCN/SSC. - Be subtle as I am not sure how public this all is yet - but Wayne seems to be a major force in it all. I leave for field work on Cat Island in August (1 month) and all is generally well

Regards  
Perran.

NKOSI LUTA KINGENGO

B.P. 5025

Luanda/Angola

Luanda, le 15 juin 1982.

Monsieur G. BALAZS,

Fishery Biologist,

P.O. Box 3830,

Honolulu, Hawaii, 96812,

H A W A I I.

Monsieur,

J'accuse réception de votre note du 28/5/82 ainsi que le poster et je vous en remercie vivement.

Je profite de cette occasion pour solliciter, selon les disponibilités, l'envoi d'une dizaine d'exemplaire du même poster.

Quant à nos activités de sondage sur les espèces en question, elles sont encore préparatives car les observations proprement dites ne débiteront qu'à partir du mois de septembre.

A cet effet, toutes documentations et suggestions que vous comptez m'envoyer ou formuler seront bien accueillies.

Dans l'espoir de vous relire, je vous prie d'agréer, Monsieur, à l'assurance de ma très haute considération.

Nkosi Luta Kingengo

Biologiste





UNIVERSITY OF FLORIDA  
GAINESVILLE, 32611

DEPARTMENT OF ZOOLOGY  
223 BARTRAM HALL  
904-392-1107

17 June 1982

Mr. Colin Phipps  
President  
Caribbean Conservation Corporation  
P.O. Box 3048  
Tallahassee, FL 32303

Dear Colin:

I am writing to bring to your attention what I view as a very disturbing development in my study area in Caribbean Panama--one that could have catastrophic consequences for the very rich and diverse marine turtle fauna there. As you know from my annual reports to the Caribbean Conservation Corporation, I have been studying sea turtles in Bocas del Toro Province, Panama, since 1979. My doctoral research focuses specifically on the hawksbill turtle (*Eretmochelys imbricata*) but incidental to this work I have conducted ground and aerial surveys of nesting and foraging habitats of the other three species that occur there, as part of the CCC's contract with the U.S. National Marine Fisheries Service. These surveys have shown that the Bocas coast includes some of the most important sea turtle habitat in the Caribbean. The development to which I am referring is the construction of an oil pipeline across the isthmus of Panama, with a Pacific terminal at Puerto Armuelles, and the other on the Caribbean at Chiriqui Grande, in the Province of Bocas del Toro (see attached map). Although there are a number of ecological impacts to be expected from a pipeline of this magnitude, I, personally, am concerned about the potential of oil pollution resulting from operations at the Caribbean terminal.

The pipeline is being constructed primarily to provide a cheaper alternative to the costly transshipment of oil in small tankers through the Panama Canal. Three American companies (Arco, Exxon, and Sohio) have leased nearly all the pipeline's capacity of 800,000 barrels/day; the cargo will be Alaskan crude oil bound for U.S. Gulf coast and East coast refineries. The pipeline is owned by Petroterminal, a joint venture of Northville Industries, Melville, N.Y.; Chicago Bridge and Iron Co. Group; and the Republic of Panama. Additional details of finance and construction are given in the attached clippings from the *Gas and Oil Journal*.

Chiriqui Grande is situated deep within the recesses of Chiriqui Lagoon, a pristine body of water that, in itself, is approximately 330 square miles in area. The lagoon is part of a larger system of bays, lagoons and islands that covers more than 780 square miles. This ecosystem is one of the most spectacular landscapes in all of Central America and the greater Caribbean area. The waters of the area are crystal clear, and are carpeted with productive sea grass beds. There are extensive coral reefs. The rich marine fauna that is supported by these habitats forms the basic subsistence of the majority of the Guaymi Indians and Creoles who live there.

The aspect of the region with which I am most familiar is the sea turtle fauna. Four species occupy its nesting and foraging habitats; all are considered in danger of extinction by the International Union for the Conservation of Nature. I have marked some of the most important beaches on the attached map, keyed by species. The area is particularly important to the hawksbill turtle, a species that has been badly depleted throughout the world, and most particularly in the Caribbean. Panama populations represent significant hold-outs.



The leatherback nesting beaches are also noteworthy. On five miles of beach near Changuinola I counted 111 emergence tracks during an aerial survey in April, 1981, and 834 tracks on 18-mile long Chiriqui Beach on 13 June of that year. The Chiriqui rookery is one of the largest in the Caribbean. Leatherbacks also nest in smaller numbers on all of the Bastimentos beaches, on Isla Colon, and on the Zapatilla Cays.

For green turtles, Chiriqui Lagoon and the surrounding area are important for several reasons. Foremost, perhaps, is the fact that migrating adults in transit between the colonial nesting beach at Tortuguero, Costa Rica, and southern feeding grounds in Panama, Colombia, and Venezuela, stop off to feed there. Forty-three tags have been recovered in the Bocas province that were put on turtles when they nested at Tortuguero. The area is also traversed by Tortuguero hatchlings in passive migration away from the nesting beach. Soon after leaving the nesting shore, the hatchlings enter sargassum rafts that are carried south by the Southwest Caribbean Gyre. Dr. Carr and I found "lost-year" green turtle hatchlings 25 miles off Bocas when we were on an Alpha Helix Expedition in 1978. The lagoon system also supports its own resident green turtle population.

There are unconfirmed reports that the loggerhead turtle nests at Rio Guariviari, along the inland perimeter of Chiriqui Lagoon. The nearest nesting beaches for this species are in Colombia to the south, and Belize to the north. There is quite definitely a population that uses the lagoon as a feeding ground.

Oil pollution from the Chiriqui Grande terminal poses an enormous threat to marine turtles and their habitats in the Bocas area. The food chains that support these animals are particularly vulnerable. They require clean water. The herbivorous green turtle feeds almost exclusively on sea grasses. The hawksbill is a coral reef inhabitant that feeds predominantly on sponges, which are filter feeders. Loggerheads consume mainly bottom-dwelling, filter-feeding mollusks. The threat to nesting beaches is equally clear. Perhaps not so obvious is the danger posed to hatchling turtles that are members of the sargassum raft community in the weed- and shear-lines in Panama's coastal waters. These floating bands of algae and flotsam are traps for floating oil.

Pollution from the pipeline could come in several ways: spillage at the terminal, coincident to loading operations; wreckage of oil-laden tankers; and the flushing of ballast tanks of ships within the lagoon or in Panama's inshore waters. The channel leading to the terminal seems deep enough, but it is narrow, and is flanked by numerous mud banks and coral reefs. At the narrowest point, I calculate from U.S. Hydrographic Chart 5029 that only 2,333 yards separate two shoals that are two and three fathoms deep. This may sound like adequate clearance, but keep in mind that supertankers up to 160,000 dry weight tonnage will be using the channel, and in all kinds of weather. Because of the limited exchange of sea water between the ocean and the lagoon, even small spills in the latter will take a long time to disperse, and will have catastrophic and long-lasting effects on the various lagoon habitats and all the animals in them.

The pipeline is fast approaching completion, and I hope that you will give some thought to ways in which the CCC can play a role in preserving the Chiriqui Lagoon area and its marine turtle fauna. We face the threat of irreparable damage to a Caribbean wilderness area of extraordinary beauty and possibly disastrous effects on the ecology of the Tortuguero green turtle colony that the CCC has worked so hard to protect. I hope you will let me hear your thoughts on what action we might take to minimize these effects.

Sincerely,

*Anne Meylan*  
Anne Meylan







The Alberta premier warned against assumptions that an energy agreement near and said he did not expect an agreement to come from the May meeting.

Alberta wants 75% of international prices for its oil. It also is opposed to new federal taxes imposed on oil and its production.

**Saskatchewan action.** Meanwhile, Husky Oil Ltd., Calgary, says it is cutting in its heavy oil wells in Saskatchewan because they are uneconomic under the provisions set forth in Canada's national energy policy.

A company spokesman said 181 wells in the Lloydminster region—13% of the wells operated by Husky—will be shut in because of a combination of prices, Saskatchewan royalties, and federal taxes.

Many of the wells are marginal producers.

Husky said more wells may be shut in when they require maintenance work.

The Saskatchewan government earlier unveiled a \$6 million program to help operators who use provincial service and supply companies.

The Saskatchewan program is designed to provide 60% of eligible service costs incurred in repair and maintenance of wells for a 6 month period beginning May 1.

Saskatchewan Resources Minister Elwood Cowley describes the program as an emergency reaction to the adverse effects of the NEP.

The Southeast Saskatchewan Oilfield Supply & Service Association says the oil industry has been seriously hurt by the federal program and many service companies have had to lay off employees.

## ARCO, Exxon, Sohio agree to use Panama line

The three main transporters of Prudhoe Bay crude through the Panama Canal have signed agreements to use proposed pipeline that would cross the Isthmus of Panama and thus eliminate canal transit.

Atlantic Richfield Co., Exxon Co. U.S.A., and Sohio Petroleum Co., which move most of the 500,000 b/d now going through the canal, appeared to guarantee construction of the 78 mile line by signing agreements to use it.

Financing of the \$170 million project (OG), Mar. 23, p. 76, and Feb. 2, p. 32) is being negotiated.

Petroterminal de Panama SA, which operates the transfer terminal of crude on the Pacific side of the canal, has let contract to Morrison-Knudsen Co., Boise, Idaho, to design and lay the 36 in. line.

Construction, estimated to require about 18 months, should be complete late in 1982.

**ARCO contract.** ARCO's 3 year agreement with Petroterminal entitles it to move 100,000 b/d of Alaska North Slope crude through the proposed line.

ARCO will pay \$100 million in tariffs during the 3 years to Petroterminal, owned by Northville Industries of New York, CBI Industries of Illinois, and the Panamanian government.

The contract allows ARCO to increase its throughput to 130,000 b/d and extend the commitment another 6 years.

ARCO favors the pipeline because canal shipping is expensive and susceptible to delays and interruptions. The agreement with ARCO and other

North Slope shippers makes the line "economically viable," ARCO said.

The line will not conflict with other proposed west-east U.S. pipeline projects, the company added.

"Because no U.S. pipeline system is likely to be built during the 3 year life of our Panama contract, we think it wise to protect our interests now," ARCO said.

Exxon didn't disclose the amount of crude it will move through the line but said its agreement is like ARCO's, for 3 years, with an option to renew for 6 more years.

Sohio also confirmed it had signed a 3-year agreement but did not disclose the proposed throughput.

The company plans to use the trans-Panama pipeline to transport crude in excess of its West Coast requirements.

## Williams, Champlin plan Austin chalk program

Two operators, veterans of Southeast Texas' Austin chalk play, plan a development program involving the drilling of as many as 150 wells in the northeastern Burleson County portion of the trend.

The play is growing rapidly as drilling action fans out from the Giddings, Tex., area (OG), Mar. 23, p. 51).

The two operators—Clayton W. Williams Jr. of Midland, Tex., and Champlin Petroleum Co.—have signed a letter of intent to drill for and transport oil and gas from about 15,000 acres of leases northeast of a line extending from Caldwell in Burleson County to Bryan in Brazos County.

Williams and Champlin each own an undivided half interest in the

leases, to be divided into two operating areas. Each firm will be operator on its half of the acreage, with the other as nonoperating partner.

Plans call for as many as 10 rigs to work the acreage simultaneously.

**Current action.** Williams currently has 13 rigs working in the Burleson, Lee, and Fayette counties area of the trend. Champlin has eight rigs working in the Burleson County portion of the trend.

Wells near the Williams-Champlin holdings have flowed 3-10 b/d or more on initial potential tests, Williams reports.

Champlin will move natural gas produced from the joint acreage through its proposed gas gathering system, which will be operated by

Ferguson Crossing Pipeline Co.

Mitchell Energy & Development Corp. last week disclosed that it had acquired Ferguson Crossing for about \$5 million in Mitchell common stock. The pipeline company owns interests in about 180 miles of gas gathering and transmission line in 12 Texas counties, mainly in the Austin chalk.

Williams is building a 200 MMcf/d gas processing plant north of LaGrange in Fayette County. He currently operates a gas processing plant 15 miles east of College Station, Brazos County, through Wil Gas Co.

In addition, Champlin operates and owns a majority interest in refrigerated gas processing plants at Lyons and Tunis, Burleson County, and a cryogenic gas processing plant at Bryan.



Domestic Petroleum Council, a group of 21 medium to moderate sized oil companies, opposing the 1,000 b/d exemption for independents.

The council consists of American Quasar Petroleum Co., Champlin Petroleum Co., Coquina Oil Co., Delhi International Oil Co., Energetics Inc., Equity Oil Co., Houston Oil & Minerals Corp., Hunt Oil Co., Louisiana Land & Exploration Co., Mesa Petroleum Co., Mountain Fuel Supply Co., Pennzoil Co., Pogo Producing Co., Quaker State Oil Refining Corp., Sabine Corp., Santa Fe Natural Resources Inc., Sinclair Oil Corp., Southland Royalty Co., Superior Oil Co., Tenneco Oil Co., and Terra Resources Inc.

The council said a 1,000 b/d exemption for independents "is bad energy policy and will provide no additional barrels of oil, even though the council's members would benefit materially from such an exemption."

On the other hand, the council

said, phasing down the newly discovered tax to 15% "will encourage domestic petroleum exploration and development activities for all of industry."

**New oil exemption.** Dole's substitute agreement would have phased out the 30% tax on newly discovered oil during 4 years at the rate of 7.5%/year.

But the Senate indicated, in a 49-47 procedural vote, that it wouldn't approve that.

Dole then withdrew the amendment and offered a substitute, which the Senate accepted. It moved forward a year Boren's phasedown provision already in the tax, which cuts the tax rate on newly discovered oil to 15% from 30%.

The Boren provision was estimated to save producers \$1.17 billion when it began in 1983, \$384 million in 1984, \$809 million in 1985, and \$1.5 billion in 1986.

Dole's original change would have

eliminated the 30% tax in a 4 year phaseout.

It was amended by New Mexico Sens. Pete Domenici and Jack Schmitt, both Republicans, to include heavy oil and incremental tertiary oil in the phaseout.

But the measure's \$11 billion plus cost to the Treasury raised the ire of Senate liberals.

Edward Kennedy (D-Mass.) and Howard Metzenbaum (D-Ohio) began a filibuster.

Sen. Robert C. Byrd (D-W.Va.), minority leader, claimed the Dole amendment "would effectively repeal the windfall profits tax" because by 1985 "the overwhelming proportion of U.S. oil production would fall within the classification of newly discovered and would no longer be subject to taxation."

Byrd said, "The addition of the Domenici amendment would leave the windfall profits tax an empty shell."

## Panamanian crude pipeline clears final hurdles

The proposed crude oil pipeline across the isthmus of Panama has cleared its final hurdles and should be on stream by September 1982.

Construction of the 36 in., 700,000 b/d pipeline began last week after completion of the financing package and approval by the Panamanian government.

The line will move Alaskan North Slope crude from the Pacific to the Atlantic to cut costs and speed delivery to U.S. Gulf Coast and East Coast refineries.

About 500,000 b/d of North Slope crude currently is moving through the Panama Canal via tankers.

Shippers of North Slope crude recently have encountered delays in canal transit.

Petroterminal de Panama SA, which operates the transfer terminal for crude on the Pacific side of the canal, signed an association agreement with the Panamanian government following approval of the project by Panama's legislature.

Petroterminal is a joint venture of Northville Industries, Melville, N.Y.; Chicago Bridge & Iron Co. Group; and the Republic of Panama.

**Construction loan.** Meanwhile, Petroterminal obtained a \$250 million loan from a consortium of 30 international banks to finance construction of the trans-Panama line.

The 5 year loan will be managed by Chase Merchant Banking Group, Eu-

ropean Banking Co. Ltd., and First National Bank of Boston.

Others in the consortium are banks in the U.S., U.K., Canada, Japan, France, Panama, and West Germany.

Terms and interest rates of the loan weren't disclosed.

The government and financing agreements clear the way for project construction, which got a big boost this spring when the three main shippers of North Slope crude signed agreements with Petroterminal to use the proposed line (OG), May 11, p. 83).

Agreements by Atlantic Richfield Co., Exxon Co. U.S.A., and Sohio Alaska Petroleum Co. to use the line cleared up questions about its eco-

nomic feasibility, thus almost guaranteeing its construction.

Petroterminal let contract in March to Morrison-Knudsen Co., Boise, Idaho, for design and construction of the 78 mile line (OG), Mar. 23, p. 76).

The pipeline will run east and north from Puerto Armuelon on the Pacific side to Chiriqui Grande on the Atlantic side.

Morrison-Knudsen also will design and build 2.5 million bbl of oil storage and two offshore tanker loading structures on the Atlantic side. Two pump stations will be built.

Construction of the line is scheduled for completion in September 1982, with start-up planned immediately thereafter.

## Procedure set for Louisiana tax refund

The Federal Energy Regulatory Commission has approved in principle procedures for U.S. interstate pipelines to make refunds of Louisiana first use tax collections to their customers by Aug. 14 as ordered by the Supreme Court.

FERC's interim rule, effective immediately, affects 20 pipelines that paid the tax directly to Louisiana. FERC will issue a second order setting refund procedures for interstate pipelines which will receive refunds from

another pipeline.

In the rule just approved, pipelines will make refunds with interest based on the sales volumes of each customer subject to first use tax charges. The refund will be made by check to the pipeline's customer. The first refund is to be made within 30 days of distribution of funds by Louisiana and within 25 days of all later refunds.

To provide for speedy refunds, the pipelines will be required to pay interest after 15 days for the first refund.



# Construction advancing for trans-Panama line

Construction of the 800,000 bbl crude oil line across Panama is progressing ahead of schedule.

More than 30 miles of the 80-mile system has been laid. By year end, the line should be extended from the Pacific coast into the Serrania de Tabasara mountain range.

The line is scheduled for completion by October 1982, but weather could slow construction because flooding is common along the route. Construction began last summer (OG, July 27, p. 110).

Morrison-Knudsen Co., Boise, Idaho, designed and is laying the line for Petroterminal de Panama SA, which will own and operate the system.

Total cost will be about \$250 million, including \$175 million to lay the line. Remaining costs are for, among other things, start-up and interest on borrowed money.

The line will move Alaskan North Slope crude from Panama's Pacific Coast to its Atlantic Coast. Transporting crude through the line is expected to cost less and take less time than present shipments by tankers through the Panama Canal. The crude's ultimate destination is U.S. Gulf Coast and East Coast refineries.

About 600,000 bbl of North Slope crude currently is moving through the canal.

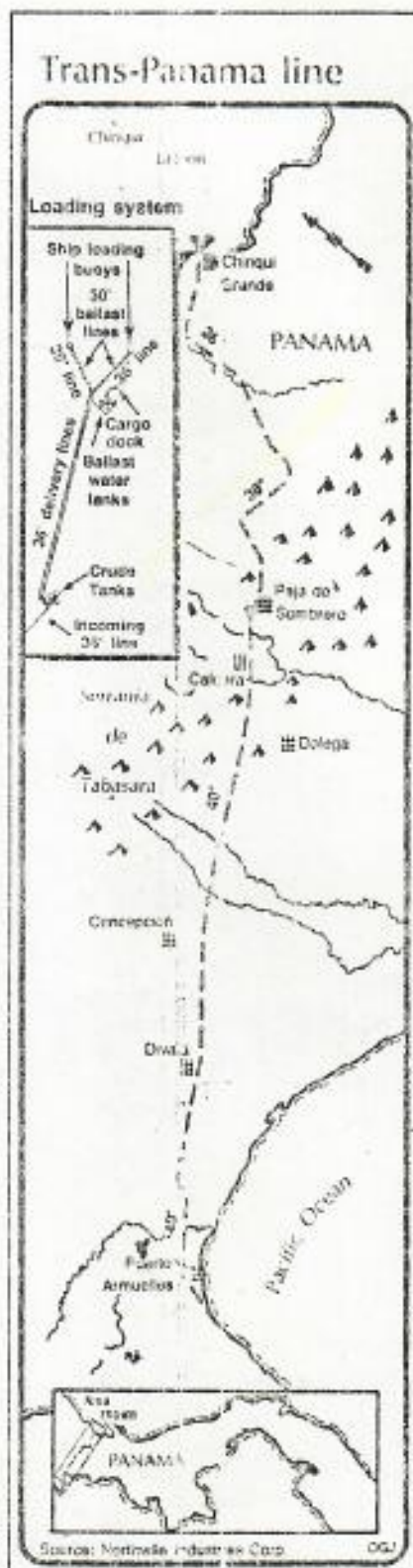
The three main transporters of Prudhoe Bay crude through the canal—Atlantic Richfield Co., Exxon Co. U.S.A., and Sohio Petroleum Co.—have signed agreements to use the pipeline (OG, May 11, p. 83).

Petroterminal is a joint venture of Northville Industries Corp., Melville, N.Y.; Chicago Bridge & Iron Co. Group, Chicago; and the Republic of Panama's Corp. Financiera Nacional (Cofina). Cofina has a 32.5% interest in the line but will increase its interest to 40% by the time the system is completed.

The government agency also will receive a 5¢/bbl toll for all crude moved through the line. That compares with a 30¢/ton fee the government now receives for crude moving through the canal.

Morrison-Knudsen also will design and build 2.5 million bbl of oil storage and two offshore tanker loading structures on the Atlantic side and two pump stations along the route.

Among the design features of the line is the capability for reverse flow. But a pump station most likely would be required on the Atlantic side of the system before crude could move over the mountains.



Grande on the Atlantic Coast.

The line involves about 51 miles of 40 in. pipe from the Pacific coast to the Caldera pump station. The remaining 29 miles to the Atlantic Coast will be 36 in. pipe.

The first pump station will be on the terminal grounds at Puerto Armuelles, and the second will be near Caldera, about 51 miles inland. Each station will have four 5,000 hp pumps designed to work in parallel.

Power for the Caldera station will be supplied by a nearby hydropower plant. Power for the Puerto Armuelles station will be provided by eight electric generators fueled by diesel.

The Puerto Armuelles terminal, in operation since 1979, has storage capacity of 2.5 million bbl. The facility has been used for offloading VLCCs carrying Alaskan crude. The oil is then transferred to storage tanks. Smaller tankers, of up to 65,000 dwt, carry the crude through the Panama Canal. Once the pipeline is completed, the transshipment terminal will store crude before it is pumped through the line.

Highest altitude along the line is about 4,065 ft above sea level at a point 9 miles west of Caldera station. The line descends rapidly to about 820 ft above sea level at the Chiriqui Grande tank farm.

The terminal facility at Chiriqui Grande will be similar to the one at Puerto Armuelles. Storage of 2.5 million will be provided in three 830,000 bbl tanks.

Two mooring buoys at Chiriqui Grande will have a capacity of 60,000 bbl/hr each. And each buoy will have six anchor locations installed. One of the buoys will be about 3,280 ft offshore, the second about 3,940 ft offshore. The system will be able to handle 160,000 dwt tankers.

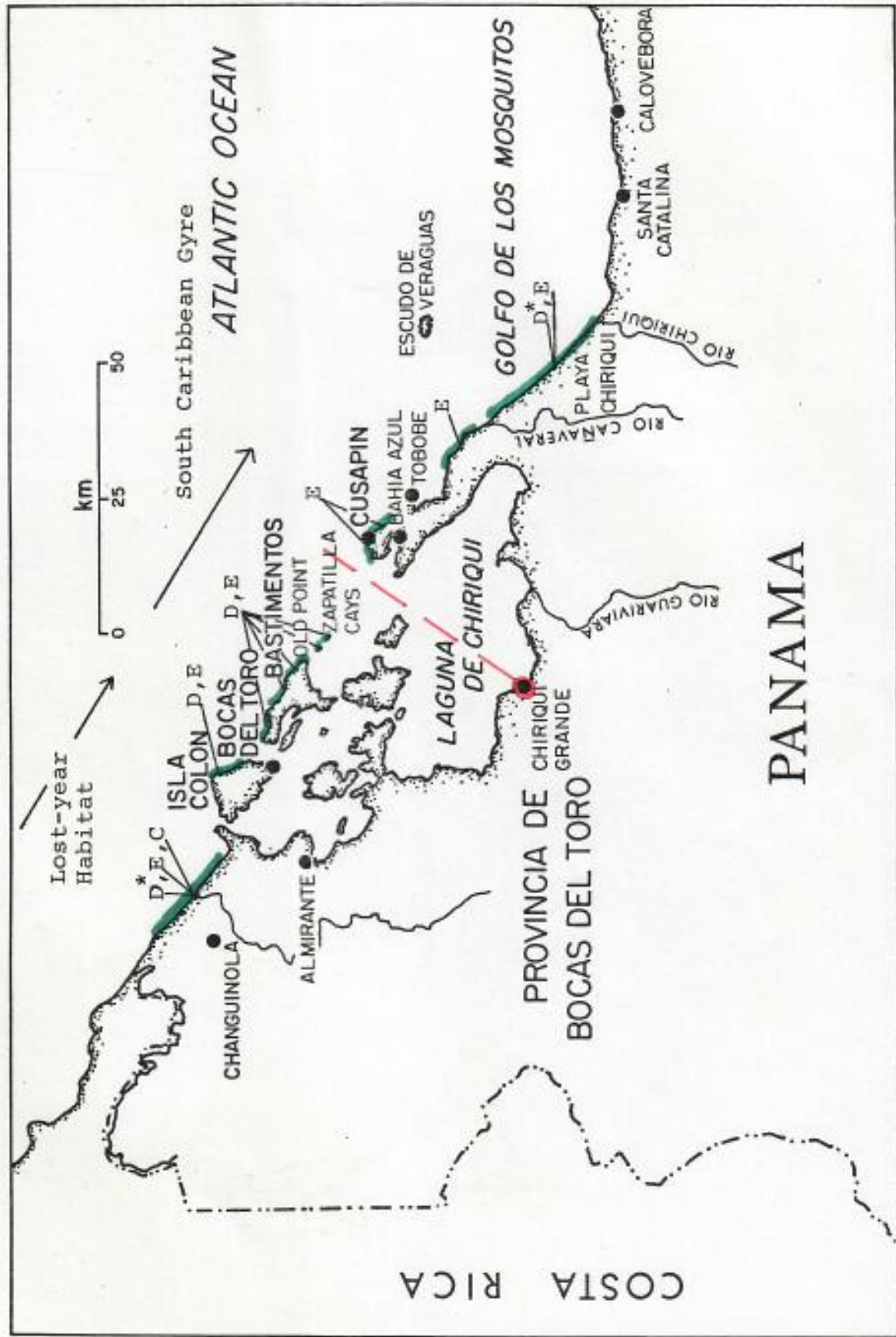
## Exxon tests wildcat on Georges Bank

Exxon Co. U.S.A. is testing the first wildcat to reach total depth on Georges Bank off the U.S. East Coast.

The company plans to spud a second wildcat nearby shortly.

Exxon reported that its Lydonia Canyon Block 133 test, in 227 ft of water, has been drilled to total depth 14,118 ft. A 15,300 ft target depth was visualized when plans to drill the





Nesting beaches of sea turtles in Bocas del Toro Province. E=hawksbill (*Eretmochelys imbricata*); D=leatherback (*Dermochelys coriacea*); C=green turtle (*Chelonia mydas*); \* =major site; --- channel for oil tankers.



# ENR



**Piping oil across Panama**



## Pipeliners beat designers across Panama's jungle

*Fast-track oil link snakes home on time*

**H**ard-driving pipeline crews are slashing a path down the steep slopes of the Andes range on Panama's Caribbean coast for the final leg of an 80-mile Pacific-Atlantic oil link that will reduce shipping times for North Slope crude to Gulf Coast refineries. When completed in late August, the trans-isthmus tube will be able to drain the Panama Canal of Alaskan oil, which currently must be pumped from large tankers to 65,000-ton ships before passage through the 50-mile cut.

Fast-track design, procurement and construction of the \$214-million, 800,000-bbl-per-day line, begun in March, 1981, is being handled by Morrison-Knudsen International Co., Boise, and its design subsidiary, International Engineering Co. (IECO), San Francisco. The petroleum transport system is being built for and will be operated by a consortium including Northville Industries Corp., Melville, N.Y., the Panamanian government and CBI Industries, Inc., Oak Brook, Ill.

The 36 and 40-in.-dia pipe, made in France and financed with French export credits, will connect an existing Northville oil transshipment terminal at Puerto Armuelles, near Costa Rica on the Pacific Coast, with a new 2.5-million-bbl storage area being built by CBI at Chiriqui Grande on the Caribbean coast.

Two pumping stations, one at Puerto Armuelles and another at the base of the Serrania de Tabasara Mountains, will lift the oil 4,000 ft over the Continental Divide. Gravity flows of 7½ ft per second down the steep drop to the swamps along the Caribbean will feed three 833,000-bbl tanks being built on a hillside overlooking Chiriqui Bay. From there, two 36-in. lines will feed concrete-coated pipe sections trenched into the surf zone and placed on the muddy bottom for the remaining distance to two



North Slope crude, currently pumped from large to small tankers at Puerto Armuelles for the Panama Canal crossing, will shift to 80-mile trans-isthmus pipeline being pushed-toward completion in late August.





marine loading buoys over a mile offshore. The catenary anchor-leg mooring buoys, also financed with French credits, are designed to handle tankers of up to 160,000 tons in 65 ft of water at maximum fill rates of 120,000 bbl per hour.

**Dividing up the take.** Keeping the pipeline and terminals full is not likely to be a problem. North Slope crude shipments through the canal, which began in August, 1977, hit a record in March—182 transits in tankers carrying 24.8 million bbl or 801,000 bbl per day. Tolls from the tankers, lifted in the three-step lockage, totalled \$5.7 million.

While the U.S.-Panamanian operators of the 67-year-old canal will miss the revenue from the Alaskan oil tankers when the pipeline begins operations later this year, both countries will benefit from the project. U.S. oil supplies will move more quickly—the round trip between Panama and the Gulf Coast will drop from as long as 22 days to 12. And a Panamanian tax on the piped oil plus the government's participation in the ownership of the line assure a constant flow of cash to the national treasury. The original makeup of the joint venture, 40-40-20, between Northville, Panama and CBI is expected to be altered once the line is in operation to give the government controlling interest in the consortium, called Petroterminal de Panama, S.A.

Because the North Slope spigot won't run forever, the pipeline is designed to flow in either direction. With the addition of pumps and power on the Caribbean side, Venezuelan, Mexican or African oil

could move in the opposite direction to the West Coast or Japan.

**A bright idea.** In the original studies five years ago for Northville's oil terminal at Puerto Armuelles, of 14 alternatives considered only one was for a pipeline across the isthmus. Serious consideration of that hazy proposal began in the summer of 1980 and IECO was hired in September to do a rough feasibility study. By December, Northville was talking turnkey with a number of companies. M-K was hired in March, 1981, under an incentive-fee contract with penalty clauses that make the contractor pay a share of overruns.

In its proposal, M-K said it could have the system operating by September, 1982. Despite a five-week delay in the construction start while the Panamanian legislature mulled over the details of the plan, project engineer Edwin L. Widgeon now says with assurance, "We'll have oil at the buoy on the Atlantic side by Aug. 28, 1982."

Orders for long-lead-time equipment went out of IECO's Houston design office the day after the contract was signed. For the most part, specifications and the initial layout were drawn from a 1:50,000 photogrammetric map of the remote region supplied by the Panamanian equivalent of the U.S. Geological Survey. Except for some elevation errors in areas of rain forests—in the mountains and along the Caribbean foothills—the maps proved to be close enough to get a good fix on the job.

**Pushing pipe.** Experienced pipeliners from Houston teamed up with surveyors to pick the route across the Pacific savanna, banana plantations, mountainous jungles and mangrove swamps. Biting at their heels, construction crews pushed the line, clearing right-of-way, excavating trenches, bending, weld-





ing and laying pipe as fast as pipeline manager W.L. Fox could drive them. As the line progressed, if design drawings from Houston weren't ready, the engineering was done out of M-K's local project office in David and the as-built drawings were sent back to the U.S.

Says Widgeon, "It was just 'Go to Panama, set up camp and get going. We'll get the survey crews out a day ahead of you.'" And not much has changed since Boise issued those marching orders. "I hate to say we're running by the seat of our pants," says project manager John B. Renwick, "but we are." He adds, "In the U.S., it's relatively easy to plan and control projects. On foreign jobs, it's all by the seat of your pants. Everything is an emergency."

Among the unexpected events, a suspension bridge on the Pan American Highway collapsed last month, cutting the project off from fuel and other supplies trucked in from Panama City, 220 miles to the east (see box). M-K crews reestablished the crossing with a temporary bridge made of rejected pipe sections in 33 hours.

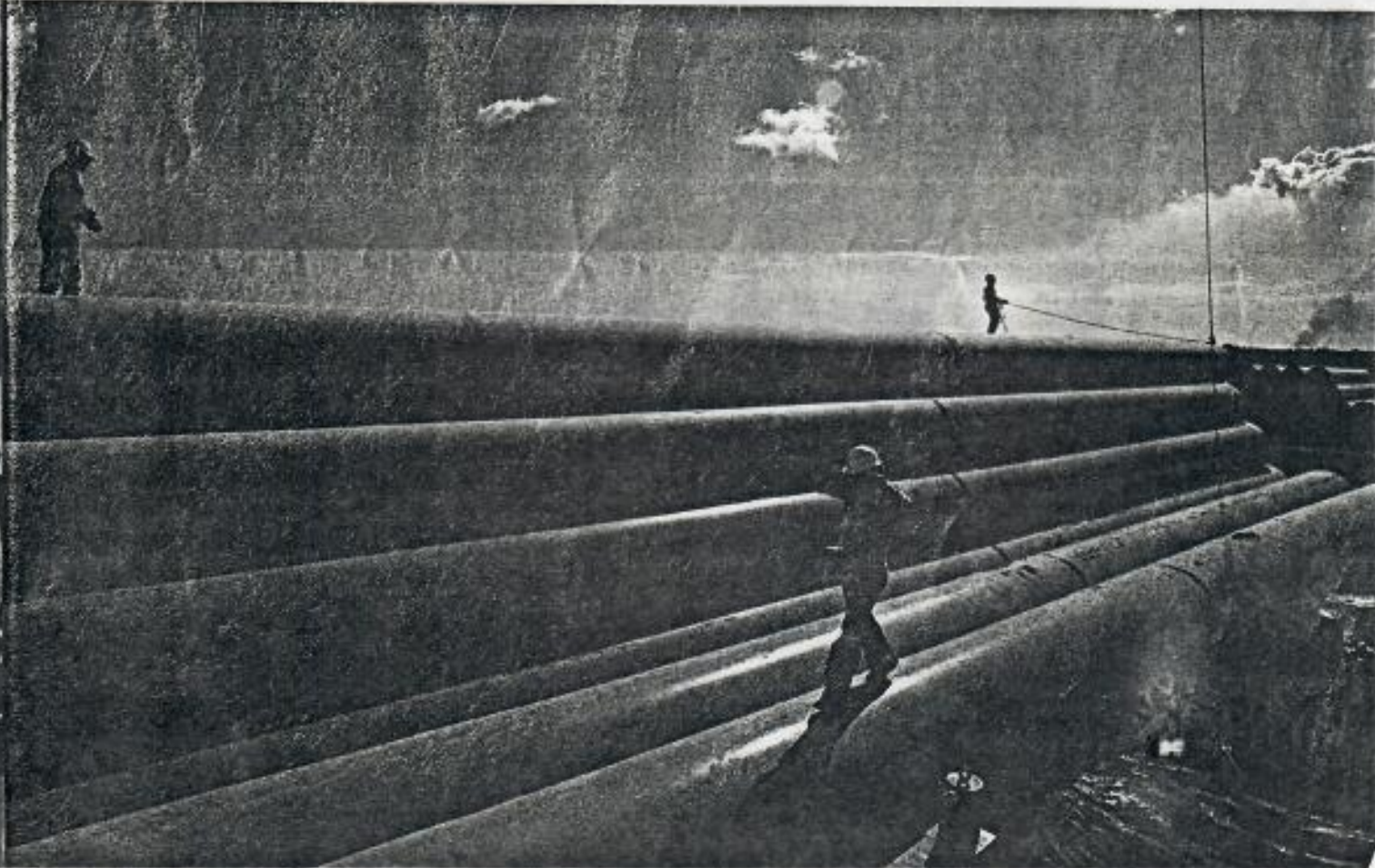
On the Caribbean side, where the plan was to land equipment and build a road from the beach to a proposed campsite, early M-K explorers discovered vast coastal mudflats leading to an impenetrable swamp. Indians living in a fishing village on Chiriqui Bay were paid to dump rocks from their canoes for a makeshift causeway to unload equipment. But the mud still claimed the first machines, sucking a front-end loader and two scrapers in up to their axles.

Eventually, a rock source was discovered about 6 miles inland and a dozer, loader and two trucks were eased into the mangrove swamp along an abandoned railroad right-of-way leading to the quarry site. The road was built from the rock source to the beach.

**Coming down the mountain.** Progress on the pipeline now is determined by bust-out crews clearing the dense jungle from the Continental Divide down to the Chiriqui Grande oil terminal. The route drops nearly 3,300 ft in elevation from the mountain



Pipe sections, 36 and 40 in. dia., are welded into double joints, transported to trenchside then bent, welded and placed.





top 5½ miles down to the coastal swamps at this point. In some sections, where the clayey soils, constant rain and dense forest conspire with scorpions, snakes and attack spiders, crews working with tracked dozers have managed to break through only 3 ft a day.

When the original proposal was made, planners figured on three solid months of downtime due to rain. But, says pipeline field engineer Donald E. Reilly, "Once you get up in the mountains, it rains every day," dumping as much as 236 in. over a year.

On the relatively flat sections from the Pacific Coast to the foothills, where progress was not determined by clearing crews, welders, mostly expatriates, averaged about 40 pipe joints during the single 10-hour shifts and peaked at double that. The 40-in. pipe runs for the first 50 miles from the Puerto Armuelles pump station to the foothills where four 5,000-hp pumps push the oil 30 miles over the mountain in 36-in. pipe.

The 38-ft-long pipe sections are generally welded in pairs at the Pacific terminal and hauled to staging areas along the route where tractor rigs with self-steering trailers pick them up and deliver the double joints to the right-of-way. Better than 75% of the segments are bent in the field to match the terrain before being welded. Then a fleet of 30 side-boom pipelayers places the tubes in trenches excavated by a bucket wheel where possible and backhoes and clamshells in more difficult terrain.

Most of the field bends are less than 1 deg. The maximum allowed in the field is 11 deg. Because of lack of uniformity in the thickness of some pipe wall, which can cause crimps during bending, the bends are limited to less than specified.

**Local development.** In addition to cutting through irrigated farmland, rice paddies and rolling, boulder-strewn hills, the route traverses more than 100 waterways, 30 of them major crossings. Because the area is sparsely populated, the pipeline crosses only 12 roads, five of them paved. All are open cuts except the Pan American Highway, where the 40-in. pipe was jacked under the two-lane route.



Foothills plant will pump oil 4,000 ft over Continental Divide.

One beneficial by-product of the construction effort, in fact, is the massive roadbuilding effort required to gain access to the line. "We've probably built three times as many miles of roads as we did pipeline because there was nothing there," says Reilly. In addition, as soon as a new road is opened, buses appear to carry children from remote villages to schools.

Relations with the Panamanians in the area have been excellent, says Widgeon. Local contractors built the construction camps. Much of the surveying was done by Panamanians and design of a substation control building at the foothills pumping station was done by a Panama City engineering firm. Along the pipeline, relations have occasionally been close. Says Reilly, "It's hard to build a pipeline with such friendly girls around, but they're what's keeping the pipeliners here." □

## M-K pipelayers build bridges, too



Morrison-Knudsen pipeline crews in Panama were yanked off the job last month for an emergency effort to reestablish a critical link in the Pan American Highway after collapse of a 465-ft suspension bridge. Traffic was restored 33 hours after M-K was called in.

The nonfatal collapse of the U.S.-built single-span bridge, completed in 1937, was apparently caused by failure of hanger cables carrying its two-lane deck and walkways 60 ft above the Chiriqui River near David, about 200 miles west of the Panama Canal. It occurred after two trucks collided and at least one of them caromed off the side of the bridge, possibly shearing some hangers.

Loss of the crossing, the third on the highway in that area to fail this year, cut the major connection between Panama City and the country's agricultural heartland at the start of the rainy season. The local province provides about 80% of Panama's food and nearly all of that moved across the suspension bridge before its collapse about 11 p.m., Wednesday, April 21. The span also carried fuel and other construction supplies from the east to an 80-mile oil pipeline being built across the isthmus by M-K. Alternate routes in the hilly area to the north are dirt or gravel, circuitous and wash out in the rains.

M-K crews began work at 8 the following morning to install a temporary crossing. Led by W. L. Fox, a Louisiana pipeliner who is construction manager on the oil link, men and machines assembled from a 50-mile radius labored continuously placing 4-ton pipe joints in the river. Fox, operating a side-boom tractor himself, placed 40-in.-dia pipes continuously for nearly 24 hours, grabbing the joints as fast as flatbeds screaming down the mountains could deliver them.

By early Friday morning approaches had been built down the steep river banks and close to 50 pipe sections were positioned in the river for closure. But before traffic could move, the river, swollen by mountain rains, had risen about 3 ft overnight. The torrent washed out one of the ramps and sent crews scrambling to find more rock and earth to reclose the gap.

They worked throughout the day to stabilize the ramp and bank with riprap. The crossing opened to traffic at 5 p.m. Friday. It remained in use until a more stable Bailey-type bridge was found and erected.

The bridge that collapsed was built by a subsidiary of U.S. Steel Corp., Pittsburgh. It appeared to have been painted recently, but maintenance or replacement of its hanger cables apparently was overlooked.

A Panamanian metallurgist at the scene said the hanger cables had been significantly weakened by rust. On one external strand nearly two thirds of the diameter was corroded. One M-K civil engineer at the site theorized that the bridge had already failed structurally before it dropped.



Bogor June 29, 1982

It is for me an honour to get the chance to write to you.

I am a student at the Bogor Agriculture University, and I am spending my last year here to finish my study on fisheries.

I read the summary book about Synopsis of Biological data on the green turtle in the Hawaiian Islands.

I am very interested about this topic because I need it as reference for my paper concern by my research on the green turtle in the Bali Island.

I will be very glad if I can get it from you. If it is not possible give some information how to obtain it

Thank you for your kindness  
and attention

Fransine Manginsela

(Fransine B. Manginsela)  
Bogor Baru B II/3-4 Bogor  
Indonesia.

Miss Fransine B. Manginsela  
Bogor Baru B II/3-4 Bogor  
Indonesia

sent  
7-12-82





UNITED STATES DEPARTMENT OF COMMERCE  
National Oceanic and Atmospheric Administration  
NATIONAL MARINE FISHERIES SERVICE

Southeast Region  
9450 Koger Boulevard  
St. Petersburg, FL 33702

May 18, 1982

Dr. George Balazs, F/SWR1  
National Marine Fisheries Service  
P. O. Box 3830  
Honolulu, HI 96812

Dear Sir:

If available, I would appreciate a copy of your paper entitled:

Sea Turtles and Their Traditional Usage in Tokelau.  
Report for WWF (USA) and Office of Tokelau Affairs.  
pp. 1-54. (1982).

Sincerely yours,

Andreas Mager, Jr.  
Fishery Biologist

+ SYN  
sent  
7-13-82





July 8, 1982

Dr. B. Groombridge  
IUCN  
219C Huntingdon Road  
Cambridge CB3 0PL  
U.K.

Dear Dr. Groombridge,

I received, via Dr. Carr, the green turtle draft for the RDB. This is a magnum opus, a great improvement on the last RDB, but I must agree with Carr that too little time has been allowed for comment. I only received the draft after the 30 June deadline. If this is rushed through without time for turtle experts from the IUCN group to comment, it would only generate ill-will and undermine the consensus status, and general standing of the RDBs.

I attach a list of mostly quite minor suggestions for corrections. Some of these are quite trivial. However, if you were to collect such comments from many group members, I think they would add up to a significant improvement in the account.

With best wishes,

Yours sincerely,

Nicholas Mrosovsky

c.c. Carr  
Balazs





CORAIL  
 MC/CL

*George Balazs -*  
*Archie & Anne Maylan*  
*have agreed to call a Marine*  
*Turtle Specialist Group meeting in*  
*conjunction with the WATS*  
*meeting in Costa Rica next year.*  
*Have you seen this La Réunion*  
*proposal.*  
*Wayne King*

Paris, January 27, 1982

R.R.N.A.  
 1301 Pennsylvania Avenue  
 N.W. WASHINGTON D.C. 20004  
 U.S.A.

Dear M. Atkin,

Please find hereafter the complement of documents, after translation in english, with our excuse for delay.

We have joined a memo (which you consider most important) about CORAIL's intervention on the island to collect the young turtles in day-light, when they go out of their hatchering sites, and reintroduce half of them in their natural habitate.

We have joined also a request in french and english for the introduction in the States of our production of turtle oil which your country needs in large quantity : it is of course a special request, based on the quality of our dossier to be submitted to CITES authorities, and in anticipation of their decision.

We rely entirely on you for this negociation. As a matter of fact, if you deem it possible to extend our request to turtle shells, which we have numbers in stores, please do it. Such an advantage would certainly help us a lot.

Don't hesitate to call us by phone or telex if necessary. Until then, please, accept my best remember and thanks,

M. CORNILLIET

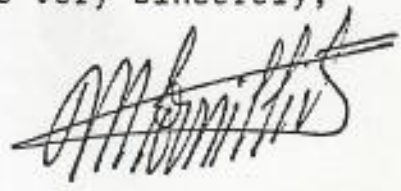
Text in french next mail : please apologize.



./...

We apologize for the delay to translate our documents in english. The documents will be available on thursday and mailed to you immediately.

Until then, yours very sincerely,

A handwritten signature in dark ink, appearing to read 'M. Cornilliet', with a large, sweeping flourish at the end.

M. CORNILLIET





CORAIL N° 03  
MC/CL

Paris, January 18, 1982



R.R.N.A.  
1301 Pennsylvania Avenue  
N.W. WASHINGTON D.C. 20004  
U.S.A.

MAY 19 1982

C/o M. Maurice ATKINS

Dear M. Atkins,

It has been indeed a great pleasure to meet you in Paris, after so many long distance calls, telexes or letters. I hope this meeting will give you the necessary information to start your negotiations.

In this prospect, I have sent to you the documents established by CORAIL and by the french administration in La Reunion, for our government to give him the basic elements of the official request to be submitted to CITES for the transfer of our sea turtles from Appendix I to Appendix II.

As you will see, one of these documents is already available in english, but I suggest you have a look at our translation before letting go its contents to your authorities. You may have to change some words or expressions, for the benefit of the document, as long of course, as you don't change the general meaning. We rely entirely on you for this matter.

As you will see, these document bear the official stamp of local authorities or agencies. For this matter, they are delivered to you only for your information.

Any document given to U.S. or CITES authorities by you should be under CORAIL or Nathan's reference. I hope you will take a great care of this, in order to avoid any difficulty between us and the french administration.

./...

TÉL : 24-71-10  
R.C SAINT-PIERRE 77 B 8  
SIREN N° 311 210 777  
SIÈGE SOCIAL : 2, RUE FRANÇOIS-ISAUTIER  
SAINT-PIERRE (RÉUNION)



Memorandum on the request of society CORAIL for the  
introduction of its products on the territory of  
the United States.

---

The society CORAIL has built and operates a turtle farm in the French Overseas Department of La Reunion, in a locality called Saint-Leu. This turtle farm has started its activities two and a half years ago, by collecting young turtle in the wild, and raising them in captivity.

The first production of shells, leather, calipee and oil is now available and this fact brings about the problem of CORAIL's future activity, including the trade of its products, in connection with the CITES regulations.

In this purpose, CORAIL has submitted to CITES through the channel of the French Government, who is a party to the Washington treaty, a request in view of obtaining the status of sea turtle farm in accordance with the resolution upon sea-ranching of the third conference of the Parties in New-Delhi (25/2 to 8/3/1981) and the transfer of the wild populations of turtles haunting the islands of Europa and Tromelin from Appendix I to Appendix II.

The basic elements of this request can be summed up as follows:

- 1/ The said islands have no human population, but a few people of the meteorological station entertained by France who owns this islands.
- 2/ Their animal population is totally protected by the french administration and any fishing or hunting strictly forbidden.
- 3/ The turtle of Chelonia Mydas species comes in very large quantities to lay eggs : as a result, the two islands appear as one of the richest sites in the world for hatching : between 2 and 4 millions of young per year according to observation by various experts.
- 4/ CORAIL has been allowed to collect a limited amount (8.000 in 1981) of young turtle, once they go out of their hatching sites, under control of french administration and scientific institutes, with the obligation to collect in day light and reintroduce into the sea at night half of the amount of the young collected.



This system enables to increase the number of the population of these islands, as no one of the young born in day light would have reached the sea-side, due to the attack of sea-birds (frigates) which involves a 100/100 loss among those young.

5/ Control by french administration is efficient and permanent although the interest of CORAIL is undoubtedly to respect strictly the regulations.

In full accordance with this system of collecting the young in the wild under control and raising them afterward in captivity, CORAIL has led a turtle farm that has come into production for the first time in summer 1981.

Until CORAIL has obtained to be officially classified as a turtle farm by the CITES authorities, with the change from Appendix I to Appendix II that will follow for the turtle populations of Tromelin and Europa, there is a need for this company to export its products, specially shell and oil already available in number and quantity.

This is the reason why CORAIL asks for special permission to export its products on the territory of the United States of America, under the provisions of the CITES agreement and the resolution of the New-Delhi conference, in expectation of its decision on the request presently submitted to the said CITES.

CORAIL is ready to bring any justification or precision deemed necessary about the contents of this application.

Paris the January 1982



Note on the increase of population of sea turtles reproducing on the Islands of Europa and Tromelin, to be expected from the initiatives taken by Société CORAIL to collect juveniles after their exit from the hatching sites, and reintroduce them into their natural habitat.

---

The third session of the Conference of the Parties in New-Delhi adopted a resolution concerning the rearing in ranches which mentions the possibility of transfer to Appendix II of species classified in Appendix I, under certain specific conditions. Ranching of sea turtles by Société CORAIL at Saint-Leu, Réunion, fulfills these conditions perfectly, as shows the file put together by the French Authorities for the purpose of obtaining said transfer of appendixes.

Among these conditions, there is one which deserves special consideration, since it underlines the positive role that CORAIL ranching is destined to play in the area of protection and population growth of the species.

Indeed, paragraphs a) and e/iv of the resolution on ranching stipulates :

"The conference of the parties recommends :

- a) that populations of species included in Appendix I, which occur within the jurisdiction of parties, but which are deemed by the parties to be no longer endangered and to benefit by ranching (by which is meant the rearing in a controlled environment of specimens taken from the wild) with the intention of trade be included in Appendix II.
- b) assurance that the operation will be beneficial to the wild population through reintroduction or other ways."

It cannot be denied and it can easily be proven to the scientific missions which may visit the hatching sites and control the collecting operation that the species will benefit from CORAIL's initiative, thanks to the reintroduction of young into the natural habitat.



This very simple operation, can be described briefly thus :  
The collecting of freshly hatched young is done during the day, during which time the mortality rate may reach 100 % due to attacks by sea birds (frigates).

By intervening, man force the frigates to move away, thus making possible the collection of young .

Of this lot, half is destined to be reared, the other half will be brought back to the beach at night, whence they can swim out to sea. It is immediatly clear that if ranching requires 8.000 young a year, 8.000 will be enabled to reach the sea. Thus the population will increase by 8.000.

There will of course be more losses among this lot of young, due to marine predators ; however, those 5.000 turtles have been saved at first by CORAIL' intervention.

This operation is only possible due to the fact that a very large number of turtles come to lay their eggs on the beaches of the islands, and that the two sites, Europa and Tromelin, are among the richest in the world : it is due also to the fact that the sites are thoroughly protected by the french administration.

In conclusion not only is the species not threatened with extinction, in these sites, but on the contrary, its numbers will increase thanks to CORAIL' action.

This initiative will, in any case, be carried out under the strict and constant supervision of the authorities of the scientific establishments concerned.



Ste-Clotilde, October 6th, 1981

B.P. 5 - 97490-SAINTE-CLOTILDE

TEL : 28-25-77

B. BONNET

CORAIL CY'S MARINE TURTLES BREEDING FARM  
=====

IN THE REUNION ISLAND  
=====

(Chelonia mydas)

EVALUATION OF OPERATION'S BIOLOGICAL AND ECONOMIC SUCCESS

I - INTRODUCTION

The breeding operation led in the Reunion Island by the CORAIL Cy since 1976, obeys the definition of "ranching", according to the criteria admitted within the CITES - 2nd and 3rd Conference of Parties : San José (Costa Rica) 1979, New Dehli (Inde) 1981:

"The exploitation of animals born in wild life but introduced in a really controlled surrounding for an important part of their time remaining to live, and the likely result of which will be that a number of animals higher than otherwise reasonably expected will come to maturity, or to the age when they become exploitable ; the animal surplus constituting the stock available for a commercial exploitation."

"The wild life", in this context, supposes a surrounding which does not limit artificially the removal of animals, eggs or gametes".

"A controlled surrounding", in this context is defined as follows : "a surrounding intensively manipulated by men to produce the selected species and which includes physical barriers preventing animals, eggs or gametes of this species from being introduced or removed from this controlled surrounding. The general characteristics of a controlled surrounding may include, without the list to be exhaustive, artificial shelters, waste removal, cares, protection against predators, food artificially supplied".

"An important part of their time remaining to live" supposes that the concerned animals be maintained in clean conditions in the ranching farm for more time than it is necessary to reach the required development for the produce to be ready for marketing, being admitted that we expect

the animals' value to increase, due to their growth and/or their coming to maturity during the period they are kept in conditions appropriate to ranch breeding".

CORAIL's farm presently receives, under the State's control, a definite number of young Green Turtles (Chelonia mydas species) when hatching ("hatchlings") coming from laying sites of Tromelin and Europa, thus born from wild populations breeding on these islands. The animals so taken from wild life are bred in controlled environment, in order to ensure an optimal growth and can reach, within 2,5 to 3,5 years a size making them commercially exploitable. This breeding produces are then launched on the national market.

## 2. EVALUATION OF THE OPERATION 'S BIOLOGICAL SUCCESS

The biological success of a breeding operation is evaluated according to the following elements :

- a) Justification of the choice of the animal species with respect to its biological and zootechnical characteristics.
- b) Biological production, i.e. biomass increase starting from an initial animal stock, with or without increase in number.
- c) Envisaged productivity in the view point of biological transformation specific to the animal and of the surrounding use.
- d) Obtaining an exploitable produce answering criteria of defined, constant and optimal quality.
- e) Absence of significant negative biological effects, direct or indirect, on the wild population of the bred species and/or on the other animal or plant species.

These different evaluation criteria will be successively examined in the case of the "ranch" breeding operation achieved by CORAIL Cy in the Island of Reunion.

### a) Choice of the species :

The Green Turtle, Chelonia mydas, breeds in large places and regularly on Tromelin and Europa's sites (cf. results of studies on population dynamic). One part of the newborn turtles, the survival of which does not last more than a few minutes, due to the predators, can easily be withdrawn and placed, in the following hours, in a controlled surrounding in view of breeding. This way of constituting an exploitable stock allows to avoid a breeding in artificial surrounding, which is biologically possible, but is a major handicap to the profitability of the marine turtle breeding (Cf. Grand Cayman's experience) :



- Length of their sexual maturity period (eight years minimum),
- Complexity of breeding cycles (breeding migration, three year laying cycle).
- Feed specialization of the adult
- Large size of breeding individuals and resulting necessity of considerable volumes for the breeding basins,
- The constant dependance on wild populations to prevent from the negative effects of inbreeding and ensure a genetic renewal,
- The large periods which would be necessary to ensure a genetic selection, etc...

are as many elements justifying the choice of "ranching" in the areas in which the population condition enables it.

Besides, the Green Turtle is a sturdy animal, from tropical area, which, in appropriate temperature conditions, has an importance growth speed in its first years of breeding. Marine, deep sea animal, it spares, due to its positive buoyancy, the energetic wastes inherent to ground species. Its aerial lung breathing reduces the pathological risks in intensive breeding compared to those encountered in most marine species in aquaculture (fishes, shellfishes) ; it is moreover a favourable asset when, as it is the case in an area subject to strong hurricane disturbances, technical incidents happen in the installations (stoppage of basin water feeding), to which branchial breathing species could not survive. The Green Turtle's integuments, characteristic of reptiles, endow them with a very appreciable mechanical and physiological protection. Finally, its resistance to emersion is a capital advantage for the breeder.

b) Biological production :

CORAIL farm's production, after a first breeding cycle of the Green Turtle (1978-1981), and as an experimental test, will reach 200 Tons/year, i.e. an already reached production volume of 17 T/month. This number corresponds to twice the initial target established during CORAIL's project submission in 1977. It is obtained from a breeding of about 0,35 T/year of newborn turtles on the breeding sites. If we consider that these individuals, due to predators, bring no increase of number and of wild turtles biomass in natural conditions, CORAIL Cy's production is widely positive as to this species exploitable stock : as an indication, and even if this comparison is somewhat artificial, the 200 T of the farm's annual production are the equivalent, in weight of 1 200 adult females of the size of the individuals observed on the area laying sites. The average individual weight obtained after a first 3 year breeding cycle is about 30 kg, for individuals whose weight at birth is 25 gr.



c) Productivity :

The above stated results are widely dependent upon the biological transformation of the artificial feed supplied to the turtles as soon as the breeding starts. For the whole breeding, the consumption index (consumed feed weight/animal, weight increase) is about 2,4, value approaching the ones obtained on one hand, in fish breeding and in poultry farming on the other hand. This biological productivity should be increased even more with the evolution of the breeding techniques actually perfected.

Referred to the exploitation volume (breeding basins), the productivity is clearly higher to the one obtained traditionally in fish-breeding ; it reaches 100 kg/m<sup>3</sup>/year for a water volume of 2000 m<sup>3</sup>.

d) Breeding produces :

The Green Turtle with a commercial size is exploited, in its almost entirety, either to supply food consumption products (meat, calipee, giblets), either products used in the various fields of handicraft or industrial transformation (oil, shell, leather).

CORAIL's farm has been launching these various products on the local and national market since the first months of 1981.

The qualified State Departments ensure the control of consumable produces as to their quality. The use of the Green Turtle in the food trade has been traditional for a long time in most insular and littoral tropical areas of the Indian Ocean ; which widely explains the weakening, and even the almost disappearance of some wild populations of this species. Bringing breeding produces on the local market is appreciated, particularly because of their quality, of the perception that they represent the fruit of a regional exploitation and of almost affective attachment of the human population towards the old culinary traditions.

The quality of non consumable products obtained from the breded Green Turtle is at least equal to the one of products of "wild" origin ; the shell issued from CORAIL's farm is very appreciated on the handicraft view point due to its aesthetic and mechanical qualities (widely resulting from feeding conditions of breded animals).

e) Direct and undirect biological effects

They result from the human action on the wild species (withdrawing of individuals, disturbance of natural phenomena, particularly during the breeding periods, housing reducing, putting back in the environment breeding animals showing transmittable biological defects), which sometimes can exert in a very undirect way (requirement stimulation on the local, national and/or international market and thus of the wild population exploitation through fishing, in the States where the species protection measures are not applied). The effects of breeding can also exert on other species and on the whole natural environment (biological unbalance due to reintroduction of animal in a non appropriate surrounding, various pollutions).

.../...



The "ranching" operation achieved in the Reunion Island, as far as its biological aspects are concerned, depends upon State Research and Control Bodies. CORAIL's farm itself has been erected entirely outside from the species breeding areas. The animals withdrawn on natural laying sites in the above described conditions are placed in a controlled environment without any possibility of reintroducing individuals in the natural environment. Moreover, the impact of breeding on the lagoon and reef surrounding is regularly followed up (hydrology, bacteriology, benthic bionomy : programme underway) by public scientific bodies and appears to be of no significance at the present operation level.

The present undirect effects of the operation show up to be essentially positive :

- The launching on the market of identifiable breeding produces has led the State to reinforce the regulations favouring the species protection all over the territory.

- The operation psychological influence is considerable on the local and regional view points, where human populations have become aware of the scientific, cultural and economic interest linked to the marine turtles. The operation can be an exemple, allowing both the awareness of the regional biological inheritance and the substitution to the mentalities of systematic predator of the natural environment (in economic views) a collective project of management and protection of this surrounding.

- The scientific research has found in the Green Turtle breeding a further justification to its development near the public and the economic Authorities ; the consequences are numerous about the species biological knowledge, and about the settlement of a regional policy of protection and management of marine biological resources.

- Produces (shell, leather) issued from breeding appear to be, due to their quality, an excellent substitution produce on the national market to those coming beforehand from other species ( turtle Eretmochelys imbricata, and olive-greenish turtle, Lepidochelis olivacea).

- On the view point of international trade and of Washington' Convention, both the raising of the reserves France had for marine turtles and the exportation exclusivity of identified produces issued from the ranch to the countries members of C.I.T.E.S. go along with a clearness of international exchanges proper to weaken the illicit trade and to avoid a requirement stimulation at the expense of the threatened wild populations of these species.

.../...



To summarize, it is recorded :

- That the Green Turtle breeding operation led in the Reunion Island for a little more than 3 years answers the "ranching" criteria defined by CITES.
- That CORAIL Cy, which is responsible for it, has proved its technical ability to ensure its biological success on the production and exploitation view points.
- That the French State Public Bodies ensure by direct action and control the operation biological success on the view points of protection and management of the Chelonia mydas species wild populations submitted to the "ranch" exploitation in the Reunion Island.



I - SUBJECT

The Washington convention held with regard to wild animal and plant life concerned that are threatened with extinction. Application of decisions taken during the New-Delhi conference of 25th February to 8th March 1981.

REFERENCE : Decision taken at the New-Delhi conference.

The secretary of State for the overseas departments - Paris

ATTACHMENT : Dossier

Sir,

1. I have the honour to submit to you herewith relative information concerning the semi-natural breeding actually being carried out at the aquacole farm of the "Compagnie Réunionnaise d'Aquaculture et d'Industries Littorales" (CORAIL) situated at Saint-Leu in Reunion.

All information contained in the attached documents contain :

- Summary of enquiries from the economic point of view (document established by the Department of Reunion Maritime affairs).
- Study of the natural population of Chelonia Mydas and species protection measures (registration established by M. Joël KOPP, head of the Scientific and Technical Institute of Maritime Fishing in Reunion.)
- Estimation of the economical and biological success of the breeding project (memorandum established by M. Bernard BONNET of the Reunion University Centre, the Institute of High Scientific Studies).
- Assurance that the operation is taken care on in all stages in non-cruelty conditions : certificate supplied by the head of veterinary services.

- Measures allowing identification of products during production and business transactions (memorandum established by the Maritime Affairs Bureau of Reunion together with the Chief Department of veterinary Services with the cooperation of CORAIL.)
- Indication that all information will be released to the Secretariat of CITES on permanent basis.

2. This dossier endeavours to reply to interrogations set out by the Washington Convention Secretariat during the New-Delhi conference on semi-natural breeding (ranching).

It appears to us that the attached documents give the possibility to the mainly administration concerned , the Sea Ministry (National delegation for Aquaculture, Direction of Maritime Fishing) the Ministry for the Protection of Nature , the Ministry of External Affairs, the Secretariat of State for Overseas Departments, to submit to the CITES authorities an official request from the French Government for the purpose of obtaining the status of turtle breeding farm to CORAIL.

This request involves the transfer from Appendix I to Appendix II in the text of the treaty, of the green turtle populations of *Chelonia Mydas* species, haunting the Tromelin and Europa Islands.

It is to be emphasized that the said proposal of the french party does not allow in any case the fishing of fully grown turtles dependant on the geographical population concerned, but only the raising in a semi-natural environment, under conditons determined by competent official Services and scientific agencies, of young newly-born from controlled and protected hatching sites.

According to the rythm of meeting of the parties to the Convention, it seems advisable that the official request is sent by letter to the CITES Secretariat at least 330 days before the next conference to be held at the beginning of 1983.



3. Very strong economic arguments are to lead the french delegation to seize the opportunity given by the contents of the resolution adopted in New-Delhi about sea-ranching.

Indeed the development of CORAIL's aquaculture farm, if to be done in convenient conditions, should rely on the following general datas :

- Absolute guarantees of supply of young turtles from the Europa and Tromelin islands, because the reproduction of Chelonia Mydas in closed conditions would be technically difficult and, in any case, very costly, thus not profitable.
- Opening of the international market to CORAIL production: for this matter, the fact that Chelonia Mydas is presently written down in Appendix I lays, indeed a serious obstacle.

This opening up of international market gives the opportunity at the same time, to the development of new food products, and possible elements for cosmetics and artistic products.

As a matter of fact, according to the tastes of consumers of food products it is the markets of northern Europe (notably RFA) and those of north America which seem to be the best orientated especially for turtle soup and turtle meat. At the same time, in the field of cosmetics it is the riche clientele who are logically consumers of such articles.

The local handicraft industry (leather and turtle shell work), towards which CORAIL and the administration are oriented, is an industry of high quality which only exists for a special clientele ; the one who appreciates the nobility of the work, the quality of the polished objects or elaborate work, in a word, a clientele educated and wealthy who, until now, are only found in Europe (notably in France, RFA and Italy) and in north America.

It is important that the outlets for CORAIL should not be restricted to the local and metropolitan market for these reasons because, outside these rather narrow possibilities, the existence of the Chelonia Mydas in the list of the Appendix I of the Washington Convention would forbid the metropolitan trade of luxury goods of CORAIL origin to foreign tourists from the countries who take part in the Washington Convention.

4. The request to incorporate the "ranching" activities of the aquacole farm of Saint-Leu, if it was accepted by the parties at the Washington Convention, would, in our opinion, lead to the cancellation by France of the reservation concerning the Chelonia Mydas, this reservation being issued with the sole desire to put back into Appendix II the turtle populations of Europa and Tromelin destined for the commercial raising in semi-natural environment as authorized by the ranching provisions of New-Delhi.

From that time onwards production and importation of any other populations of green turtles, being written into annexe I of the convention, would be strictly forbidden.

Given all written above, it seems to us necessary to present the French request, if possible combined with a European request, as soon as possible.



## I - INFORMATION ABOUT CORAIL FROM AN ECONOMICAL POINT OF VIEW

(Summary)

CORAIL (Compagnie Réunionnaise d'Aquaculture et d'Industries Littorales), company by shares, is one the subsidiary of S.O.M.D.I.A.A. (the Company of Organization, Management and Development of Food and Agricultural Industries) Head Office 15, rue Croix des Petits Champs, 75021 PARIS CEDEX 01.

Head office and unit of CORAIL settled in the "commune" of SAINT-LEU on Reunion Island.

Adress : Pointe des Châteaux - B.P. 40 - 97436 SAINT-LEU.

This production unit owns water basins total volume : 2.000 cubic meters - Average yield : 100 kg for a pan of m<sup>3</sup> each year and various equipment (pumping stations, laboratory and so on).

Production : 200 tons year, this capacity could quickly be doubled.

Yearly turnover of 10,000,000 francs.

Staff : 18 employees as at 31 December 1980 ; 22 employees as of date ; an increase of 10 units planned for 1982, if possible.

### Transformation

Firstly from the alimentary point of view :

The slaughtering of the turtle takes place in a municipal slaughter-house, in the town of Saint-Pierre, the biggest place nearest of the aquacole farm. The products destined for consumption are then cut up and deep frozen for the local market.

Also, it is envisaged a cannery production unit of turtle soup destined for the local market as well as for exportation. The purification of the oil extracted from the fat will also take place on Reunion Island.

Secondly from the artistic point of view :

The absence of tanneries on the island means that the skins cannot be treated on the spot. On the contrary, the scaling of the turtle-shells in undertaken in a satisfactory manner : the CORAIL farm has installed a workshop for polishing the shells., which will be expanded as of the beginning of 1982. For the installation of a school for teaching cabinet making and inlaid turtle shell work the State will help in the foundation of such institutions.

These pieces of informations show that the public agencies are all in favour to give locally a maximum value to the product ; in fact the impact from the point of view economically and socially is not limited to breeding. The possibilities seen in the light of transformation can double, perhaps triple the raw product of this secteur which, in other quarters, would be expressed in terms on hundred jobs approximately.



II - ESTIMATION OF THE POPULATIONS OF CHELONIA MYDAS OF EUROPA AND TROMELIN ISLANDS - MEASURES FOR THE PROTECTION OF THESE POPULATIONS

IMPORTANCE OF NATURAL POPULATIONS

The protection of a living population being necessarily dependent upon its own level, several surveys of stocks of green turtles have been undertaken since 1970 on the islands of Tromelin and Europa.

Results to date which vary from one year to another are regrouped in the following tables (the first concerns Europa, the second Tromelin).

Year	Appraisalment of Nos of females	Author
1970 - 1971	4.000 - 1.000	HUGHES
1973 - 1974	7.000 $\pm$ 2.000	SERVAN
1978 - 1979	13.500 $\pm$ 4.000	LEBEAU
1979 - 1980	4.000 $\pm$ 1.000	KOPP
1980 - 1981	11.500 $\pm$ 3.000	KOPP

Year	Appraisalment of Nos of females	Author
1970 - 1971	300 $\pm$ 100? (1)	HUGHES
1973 - 1974	3.000	LEBEAU & BATORI
1977 - 1978	1.000	LEBEAU
1978 - 1979	4.000	LEBEAU
1979 - 1980	3.000	BONNET
1980 - 1981	3.000	BONNET

(1) These figures are based on an inquiry carried out by officials from the Meteorologic service. No other study had taken place at that time.

These figures, even if only partial, nevertheless confirm that the population of green turtles which have recently laid eggs on Europa and Tromelin are amongst the most important in the world.

Let us take note the systematic checks of the Europa population since 1978 makes possible the beginning of a dynamic study.

The aquacolian activity of CORAIL is at the beginning of a study of the population of begetters since it gives the necessary establishment of the yearly assessment of quota deductions.

#### CONSERVATION OF POPULATIONS

This ranching operation will not prejudice natural stocks, thanks to direct and indirect protective actions of adult or juvenile turtles, which are presently carried out by scientists on the French Eparses islands in the Indian Ocean.

##### 1 - Protection of adults

This protection consists of the systematic putting back into the sea the female turtles lost and found in land ; thus a hundred begetters were put back into the sea in Europa during the study carried out on populations in 1980-1981.

If we can calculate the survival number of 1 %, this operation is the equivalent of saving 100,000 young.

##### 2 - Protection of the young and the egg sites

###### 2.1. The young (the new born)

The animals which have been collected for breeding purposes are set apart exclusively in the day time. Natural death takes place during the sun lit hours (by Frigate Ariel and Frigate Minor) before the small turtles get to the sea.

The collecting is initially carried out by taking double the needs for breeding, half of these young are set free after nightfall for the needs of wild life. Thus, about 20,000 new born green turtles are actively protected each year.



In order to carry out these conditions the modalities of collecting to be strictly observed, are as follows :

- the departure of the collectors from the meteorological station is not permitted before sunrise.
- the return is half an hour after sunset, no matter where collecting is to take place.
- the nests must on no account be touched, the new born must be collected until after natural birth.
- the animals captured are divided into two lots each day :
  - a) the first lot of animals are placed in water pans
  - b) the second lot are released each night on the beach, about 10 metres from the edge of the sea, and no form of light is allowed during the period they return to the water.
- during most of the campaign the number of animals harvested for breeding purposes will not depass the number of those that are set free.
- in future a more precise account will be taken each day by the harvesting agents.

This accounting will show :

- a) the number of young set apart
  - b) the number of turtles set for breeding
  - c) the number of animals set free
  - d) the number of nests from which they were taken
  - at the end of the campaign this registration will be signed by the official agent on duty on the island who will testify that the collecting was carried out in the fore mentionned conditions.
- The lot number of animals transported by plane will be indicated.

A copy of this registration will be sent to the I.S.T.P.M. laboratory on Reunion by the maritime service.

#### 2.1.1. The egg laying

The biologists on mission in the islands frequently displace nests that are badly situated, or gather eggs left out during the night by the females who have just come on land.

2.2. Indirect protection

2.2.1. By the existing regulations

The economical importance justifies strict applications of existing regulations for the complete protection of the species on the Eparses islands.

2.2.2. By the commercialization of ranching products

The controlled commercialization of ranching products should ensure that illegal poaching does not take place.

3 - Efforts to reconstruct the former thinned out population

It is possible to envisage that during the years that the islands were frequented a certain number of nests containing new born were transplanted to former egg sites that have now disappeared (Agalega, Saint-Brandon, Seychelles, etc...) and set free in natural surroundings.

Such an operation can only be envisaged with the agreement of the International Scientific Community.

In conclusion, it appears that all these acts are of great benefit to the natural population of green turtles living on the Eparses islands.

As HUGHES testified in his synoptical report (1980, p. 8) the only one who may suffer are the frigate birds deprived of their prey.

Although a precise study is necessary it appears that the collecting of the young on the islands has not especially upset the frigate birds for two reasons :

- the turtles collected or preserved (about 20,000 a year) represent only a small proportion of hatchings, in day-light, representing 20 % of the total, 600,000 turtles per year (1980-1981 on Europa).



Observers have established that frigate birds eat fish to compensate for this loss of food.

The continuous scientific work carried out for some years show the importance of green turtles on Eparses islands. The conditions fixed for exploitation for harvesting purposes give assurance that wild life does not suffer; on the contrary it works in its favour. A scientific counsel for surveying purposes who should watch incessantly will be asked to verify protection formerly evoked.

IV - CERTIFICATE

I, the undersigned, Jacques DUPONT, veterinary inspector, departmental inspector of veterinary services, hereby certify the company CORAIL in its breeding of turtle, situated in SAINT-LEU, Reunion Island, complies with the provisions of the decree No. 80-791 dated 1st October, 1980 applicable by Rural Code No. 276 concerning conditions of transport, detention and slaughter.



V - IDENTIFICATION OF PRODUCTS DURING PRODUCTION  
AND COMMERCIALIZATION

IDENTIFICATION OF TURTLE ON EGG SITES

Complete protection of turtle on the egg sites in Europa dates from the 23rd of May, 1923, on which day a turtle reserve was installed by an item in the official Newspaper of the 9th of June, 1923 P. 439. Together the Eparses Islands (Tromelin, Europa, Juan de Nova and Glorieuses) were categorized as natural reserves by a decision taken: decision No. 101 DGRS on the 28th July, 1971 which was fixed on the 18th Novembre, 1975. Under these conditions animal life was completely protected, under the guidance of the head of the Météo Mission ; the legal representative of the French authorities in these islands.

Collecting of newly born turtle for breeding purposes on Reunion, with commercial interests, is authorized by the Prefect of Reunion, Government Delegate for the Eparses islands, on advice from the Scientific and Technical Institute of Maritime Fishing and a scientific advisor. Control of deductions carried out by the operating staff is taken care of by the state agent in charge of fishing control on the islands, who guarantees that the execution of the quota and security conform with the public powers. This control takes the form of a paragraph in the daily announcement of deductions and the throwing back into the sea by the staff. The deductions are carried out under the responsibility of the Maritime Service, representing the Sea Ministry and specialises notably in the guardianship in the aquacole sector.

The application of this ruling is strictly opposed to all turtle markets or the products coming from the Eparses Islands, with the exception of an identified and authorized contingent of the new-born, who are exclusively destined for the needs of the local aquaculture farm.

INDENTIFICATION ON NATIONAL CUSTOMS TERRITORY

The young turtles arriving by air from the islands of Tromelin and Europa are put under strict supervision from the moment of debarkation. The quantitative inspection is carried out by veterinary inspectors who give permission for the transportation of living animals to their place of breeding.

The control of the farming depends on the accountancy of CORAIL. This is a company by shares who undertakes payment of TVA according to the law. The production activity of the farm and the management of their stock is under control of the administration.

The legislation forbids CORAIL to kill her live-products herself. The turtles are, therefore, killed in a municipal slaughter-house, which is controlled by the veterinary service. The number of animals who enter the slaughter-house and the number of products that are sent to the market are registered independently.

The control of the animal commodities for most of the distribution market is helped out by the hygiene inspection service of animal commodities (veterinary services) and from services provided by the suppression of frauders, giving customer protection. These two services have at their disposition organized justification from invoices legally claimable at all stages of production.

The whole of the regulatory measures to which the turtles industry is submissive, is a way of guaranteeing that these joint commercialized breeding products come from only one source : the legal collecting of young on the Eparses Islands.

Sea turtles, for years past, do not come to lay their eggs on the Reunion beaches. Fishing for these animals is rare, which is indicated by the fact that these wild products cannot be found in the local markets. However, the development of breeding justifies the local anxiety of the authorities who wish to enforce the interdiction of fishing and commercialization of free *Chelonia Mydas* turtles coming straight from natural sources, in order that breeding does not encourage the capture of some turtles in Reunion waters. At the same time the only products of the *Chelonia Mydas* authorized in the local market will be those which justify their origin from a regular turtle farm.



Given that taxation is only slightly different overseas and in the metropolis, exporting breeding productions to the metropolis needs customs control and a veterinary health bill.

Product identification in the metropolis uses the same general reglementation (see below) for Reunion.

In metropolitan France fishing restrictions concerning Chelonia Mydas are being looked into, overseas territories included.

#### EXPORT CERTIFICATES

Application by CITES to Chelonia Mydas, which adds to interdiction of fishing in French Territory gives way to the fact that guarantees can be assured only for the Reunion ranch or other approved sources accepted by the CITES, guarantees which are certified by documents produced by the veterinaries and customs officials required by national and international authorities.

VI - COMMITMENT OF THE FRENCH GOVERNMENT

The French Government agrees to ensure that criterions and modalities described in this dossier in agreement with the terms and resolutions arrived at during the New-Delhi conference from declarations made at the Washington conference regarding the international trade of wild animal and plant life which are threatened with extinction (C.I.T.E.S.) will be respected in future, and guarantees that permanent information will be available to the Convention Secretariat by means of the competent authorities.



**THE FLORIDA STATE MUSEUM**  
**UNIVERSITY OF FLORIDA**

OFFICE OF THE DIRECTOR



the florida  
state museum  
museum road  
university  
of florida  
gainesville  
32611  
904/392-1721

6 July 1982

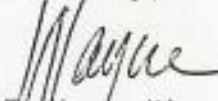
Dr. Peter C.H. Pritchard  
Florida Audubon Society  
1101 Audubon Way  
Maitland, Florida 32751

Dear Peter:

It has recently come to my attention that you believe the practice of the SSC Crocodile Specialist Group members finding their own money for attendance at group meetings grew out of a suggestion from me, a suggestion that is insensitive since you believe my attendance at international meetings is met by IUCN. For the record, IUCN does not pay me for any meetings. Prior to coming to the museum I was funded by New York Zoological Society and from private sources. Since coming to Florida I have continued to avail myself of those private sources rather than divert already scarce funds from the museum budget. Furthermore, in 1971 when I was not even a member of the Crocodile Specialist Group I hustled money from New York Zoological Society to fund the first meeting of the group in New York. At my suggestion NYZS also funded the second meeting of the group in South Africa. The third meeting of the group in Australia was funded jointly by NYZS, WWF, and Professor Harry Messel's crocodile research project at the University of Sydney. At that time, 1976, it was already apparent that hustling money for the entire group was becoming too big a chore. The group members themselves -- not Wayne King -- decided to raise their own money for future meetings. We have had two meetings since that time and are facing the third meeting this coming September, and every member from a developed country that wished to attend the meetings has been able to find funding from some source. In a few instances it has meant that they have had to set aside personal savings, but the majority have found other sources. Even most members from developing countries have been able to attend. When the three or four members from developing countries who could not find funding let me know, I then found funding for them. It's a heck of a lot easier to raise money for three or four people to get to meetings than it is to raise money for 15 or 20. It's also a lot better use of IUCN/WWF's conservation dollar.

The least you could do is get your facts straight.

Sincerely,

  
F. Wayne King  
Director

FWK:ss ✓  
bcc: G. Balazs, A. Carr

A UNIVERSITY MUSEUM WITH RESEARCH EMPHASIS ON CARIBBEAN NATURAL AND SOCIAL HISTORY

EQUAL EMPLOYMENT OPPORTUNITY/AFFIRMATIVE ACTION EMPLOYER



U.S. DEPARTMENT OF COMMERCE  
National Oceanic and Atmospheric Administration

To : GEORGE

From: GENE W.

Could you bring in  
THE GREEN SEA TURTLE  
SHELL FROM THE REPERCIO  
CASE AT YOUR CONVIENCE.

THANKS  
G

949  
65-66

SCORE. THE GREEN TURTLE FROM  
MIDWAY WAS KILLED BY THIS  
G

TRANSMITTAL FORM CD-82A (10-67)  
PRESCRIBED BY DAO 214-2

U.S. G.P.O. 1976-765-005/1035 REG.#6





**UNITED STATES DEPARTMENT OF COMMERCE**  
**National Oceanic and Atmospheric Administration**  
 NATIONAL MARINE FISHERIES SERVICE

Northwest and Alaska Fisheries Center  
 7600 Sand Point Way NE, Bldg. 32, RACE  
 BIN C 15700  
 Seattle, WA 98115

June 17, 1982

F/NWCl:JEJ

WPPO	
DEG	<input checked="" type="checkbox"/>
JJN	<input type="checkbox"/>
ETN	<input checked="" type="checkbox"/>
PAM	<input type="checkbox"/>
HEW	<input type="checkbox"/>
WCS	<input checked="" type="checkbox"/>
SLA	<input checked="" type="checkbox"/>
MCS	<input checked="" type="checkbox"/>
GKH	<input type="checkbox"/>

Mr. W. C. Streeter  
 Special Agent, NMFS  
 P. O. Box 3830  
 Honolulu, HI 96812

Dear Mr. Streeter:

Regarding foreign gear identification submitted by you, the medium blue netting is polyethylene netting 6½" mesh inside, over and including the opposite knot stretch measure #36 or 42 thread diameter.

The selvage seam is made of gray polyethylene with white poly. threads, interwoven between.

The specific gravity of the polyethylene is .91; hence, it floats when not encumbered with hardware and is considered a serious threat to navigation.

This netting is typical of that used by the Japanese in the Bering Sea when fishing pollock. The 6½" mesh indicates it was used in the forward section of trawl and Japanese pollock trawls are rigged to fish "on" and "off" bottom by simply changing the scope ratio.

The netting contained (1) each goose barnacle 7/8" in length indicating this piece of netting was adrift for 6 months to a year so it could very well have drifted from the south Alaska chain quite readily. This sample was definitely used by the Japanese. The Japanese trawl fleet prefer polyethylene to any other netting material in trawls and they definitely color code the nets differently for each company. However, I was not familiar with the company associated with this blue polyethylene.

Sincerely,

*Jerry Jurkovich*

Jerry E. Jurkovich  
 Fishery Biologist (Research)

*copy to Central Bldg*



Dear George,

Many thanks for the copy of your reply to Dr. Burchard's letter dated 26th May, 1982. You appear to have the same postal delays that are a common feature here. I agree with your requests to Burchard.

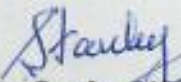
I have read Burchard's letter to you with some interest and can appreciate his alarm at the very thought of "hordes" of Korean and Filipino contract labourers on the islands. Out here we have sampled the latter's indiscipline and hostility. Their compatriots are raping the Sulu Sea and will probably do likewise there. I have had no contact with the Koreans.

As for "lacquered turtles, dried monitor lizards, dried crocodiles and vast numbers of dried feet of these animals" - these could be from Singapore where their sale is not restricted. All sorts of animal products are found in practically every shop in the island republic which is a trading nation and an exporter's paradise. The other purveyors of turtle products are the Philippines and Thailand for crocodilian skins, feet etc.

I am not sure whether or not the Indonesians participate in the turtle trade or animal trade. If I am not mistaken they are a signatory to CITES.

With all good wishes.

Yours sincerely,

  
G. S. de Silva



← Second fold here →

Many thanks for the copy of your reply to the  
University's letter dated 20th May, 1982. You appear to  
have the same postal details that are a common feature here.

Sender's name and address: Turtle Islands National Parks

P. O. Box No. 768 Sandakan,

Sabah, East Malaysia



AN AIR LETTER SHOULD NOT CONTAIN ANY  
ENCLOSURE: IF IT DOES IT WILL BE SURCHARGED  
OR SENT BY ORDINARY MAIL.



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



ZOO ZÜRICH

ZÜRICHBERGSTRASSE 221  
CH-8044 ZÜRICH  
TELEFON 01/251 54 11

16.6.82

Dear Jense,

Here are the docs I mentioned  
in my letter. Your commentary  
is not welcome!

Thanks, Kevin





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

June 22, 1982

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

Dear George:

I have just received the copy of your letter of September 21. I don't ever recall receiving the original.

We are not funding Cayman turtle farm nor have we ever considered doing so. In fact, we were among the groups who went to court a couple of years ago to prevent import of their products into the U.S. I have no idea where Peter heard we were funding them, but it ain't so!

I hope you have a productive season at French Frigate Shoals and encounter many old friends.

Best regards,

Nancy

Nancy E. Hammond  
Project Administrator

NEH/fkr P.S. you recently sent me a clipping about a sea turtle nesting island disappearing beneath the sea off the coast of East Africa. I have not been able to get any further details, but have written our headquarters in Switzerland to see if they know anything about it.

You also enclosed a clipping about TRAFFIC - JAPAN. An office has been opened there, with support from WWF-International. It is being run by an American, Tom Milliken. If you

Want to contact him his address is:

TRAFFIC - JAPAN  
YAMAKI BUILDING  
4-8-2 SOTO-KANDA  
CHIYODA-KU  
TOKYO, JAPAN

See enclosed for some background information.

Best,  
NEA



TRAFFIC (JAPAN): PRESS CONFERENCE

Date: May 13, 1982

Time: 3:00 - 4:30

Place: The Environment Agency Press Club

Participants: Dr. Koga, Prof. Obara, Mr. David Mitchell, Mr. Tom Milliken

Press Coverage: About 15 reporters covering all of the major newspapers were present plus a representative from Associated Press who had to get special permission to attend.

Evaluation: The press coverage was very good indeed; major articles were carried in the leading newspapers in all regions of the country. The NHK TV network also announced the TRAFFIC initiative on the morning news on May 14th. The AP story was carried in the Asahi Evening News on May 15th in a prominent page 2 story. It was also carried in the Hong Kong newspapers and I'm told that the Asia Wall Street Journal also covered it. In addition, the press release from WWF International has been given coverage in the English language press here as recently as May 26th. The weekly Japan Times Weekly featured a special article on the TRAFFIC operation.

By all accounts the press conference was an unqualified success. Mr. Ichida of the Wild Bird Society felt the press coverage was very favorable and the extent of it was impressive. It is estimated that 60 million people could have conceivably read the accounts and many people continually mention having seen the articles.

World Wildlife Fund is mentioned in every article and in some cases was given prominent headlines. Most articles also mentioned the proposed visit by the Duke of Edinburgh as well. Mr. David Mitchell was also mentioned in every article and usually there was a quote attributed to him. His presence was an important factor in presenting TRAFFIC (Japan) as an international initiative. Dr. Koga and Prof. Obara further enhanced the credibility of the launch as they are both well known personalities in Japan who have a lot of respect.

At the press conference, Tom Milliken gave a presentation of the Japanese wildlife trade using a map and colorful animal/plant stickers to illustrate the movement of wildlife through the world into Japan. As a result, some very good factual data was given in most of the major articles. In particular the Japanese trade in ivory, tortoise shell and musk was mentioned. This is very important as Japan is a leading trader in these species and large areas of the trade are suspect. Public awareness of the endangered species problem was enhanced and the fact that Japan is perhaps the world's second largest consumer of wildlife was recorded.

The success of the press conference was further enhanced by the fact that Mr. Kujiraoka has agreed to become the honorary Director for TRAFFIC. This endorsement was an important highlight in the press coverage.

The TRAFFIC launch has clearly enhanced the credibility for the new organization from the view point of the press, the government and the Japanese nature conservation movement. Despite the fact that Japan's leading environmental reporters were away covering the UNEP conference, TRAFFIC (Japan) was given coverage ~~away~~ <sup>beyond</sup> ~~and~~ <sup>above</sup> expectations. The press conference has to be viewed as an impressive start for TRAFFIC and a major boost for public recognition of WWF and its activities in Japan and abroad.



Future Media Exposure: In addition to the immediate coverage generated by the press conference, TRAFFIC and the wild life trade is now a hot media item. Two separate sections of the NHK TV network are now filming stories which will feature TRAFFIC.

First, the Social Affairs section is making a 15 minute human interest story on TRAFFIC (Japan) and Tom Milliken. It is scheduled to be aired on June 4th at 6:30 pm throughout the Kanto (Tokyo and surrounding areas) Area. WWF and WWFJ will also be featured as well as an interview with Prof. Obara concerning the endangered species problem.

Secondly, and perhaps more important for long term public awareness of the problem of Japan's wildlife trade is a one and a half hour documentary that is now being filmed for a late June showing during prime time. TRAFFIC will be part of the show, which is international in scope and should have tremendous impact in bringing the issue to the surface. It represents a major breakthrough and I am currently working very closely with Mr. Nikkai the director of the program. The team is now in Southeast Asia filming and I have set up contacts for them and shared a wealth of information with them. Mr. Nikkai has kept very close contact with me throughout the filming and we have had telephone conversations virtually every night since they went to Southeast Asia. It is a very exciting project and it should ultimately generate alot of support and understanding for the objectives of TRAFFIC in Japan. As well it has clearly established me as a valuable contact with Japan's most important TV network.



CITES

KOBE PRESS  
(LOCAL NEWS PAPER)  
1982. 5. 14.

Dear George:  
You may take interest  
in this clippings.  
Best regards.  
Steve Uchida

87.5.14 (Kobe)

# デタラメ日本の動物保護

## ついに「Gメン」派遣

国際保護団体

この「デタラメ」は、日本が野生動物の保護に「先進国」の水準に達していないことを、CITES（ワシントン条約）の締結国である日本に、国際保護団体が「Gメン」を派遣して、動物保護の現状を調査し、必要に応じて保護活動を行うこととしている。

日本は一九八〇年「種の多様性保全法」を制定し、野生動物の保護に一定の努力を払っている。しかし、この法律は、動物の保護を主眼としており、動物の生息環境の保護や、動物の取引の規制などについては、まだ十分ではない。また、動物の保護に関する法律は、まだ整備されていない。そのため、動物の保護が、一部の動物に限られており、多くの動物は、保護の対象となっていない。

国際保護団体は、動物の保護を主眼としており、動物の生息環境の保護や、動物の取引の規制などについては、まだ十分ではない。また、動物の保護に関する法律は、まだ整備されていない。そのため、動物の保護が、一部の動物に限られており、多くの動物は、保護の対象となっていない。

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また日本は世界最大の動物保護国である。CITES（ワシントン条約）の締結国である日本は、動物の保護に一定の努力を払っている。しかし、この法律は、動物の保護を主眼としており、動物の生息環境の保護や、動物の取引の規制などについては、まだ十分ではない。また、動物の保護に関する法律は、まだ整備されていない。そのため、動物の保護が、一部の動物に限られており、多くの動物は、保護の対象となっていない。

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Source: KOBE PRESS, May 14, 1982 edition.

#### JAPAN'S HAPHAZARD ANIMAL CONSERVATION RECORD BRINGS "G-MEN" TO JAPAN.

....Special dispatch from Geneva, May 13....The World Wildlife Fund (WWF) and the International Union for Conservation of Nature and Natural Resources (IUCN) on May 13 announced the establishment of a "Japan Wildlife Surveillance" office in Tokyo. The purpose of the office is to see that Japan complies with the international treaty in its trade in wildlife products. The WWF and IUCN also reported on Japan's recent imports, noting that Japan has an extremely bad reputation among the world's conservationists.

In 1980, Japan had ratified the international treaty concerning trade in endangered species products. The establishment of the Tokyo surveillance office by the WWF and IUCN is based on this treaty, and Japan's office is the fourth one after offices in the U.S., West Germany, and England.

The Director of the Tokyo office will be conservationist Dr. Tom Millikan of the U.S. who is extremely fluent in the Japanese language. Japan has appointed Dr. H. Kujiraoka, former Director-General of the Environmental Agency, and Dr. Hideo Ohara, among others, to serve on the Board of Inquiry which will work in cooperation with the office.

Pertaining to the establishment of this office, WWF and IUCN issued a statement as follows:

"Japan is the world's leading trader in wildlife products, and is also the leading consumer nation. Although Japan has ratified the international treaty, she has continued to flaunt its provisions. Japan has shown very little inclination toward the conservation of endangered species. The Tokyo office will cooperate with Japanese Customs authorities to ensure that Japan abides by the provisions of the treaty, and will also make an effort toward educating the citizens of the nation on conservation needs. Thus, this office should play a vital role in the protection of the world's endangered species."

According to the WWF and IUCN, Japan is responsible for one-third of the world's trade in birds (and bird products) and practically all of the trade in musk and turtle shells. Also, Japan is second to West Germany in the fur trade. She is also the leading nation in importing sea shells, corals, snake and lizard skins, butterflies, and tropical fishes.

The Government of Nepal, whose existing stock of musk deer has greatly decreased, has prohibited the export of musk from Nepal since 1973. However, the black market has been very active since, and last year Japan imported 25 kilogram of musk oil from Nepal, and about double the volume of a year previously, from China. Furthermore, Japan is the world's leading importer of elephant tusks. Japan and Hong Kong have imported 80% of the tusks from Africa. Japan was also prominent as an importer of rhinoceros horns, having imported 800 kilogram last year.



Dr. Hideo Ohara, Zoologist, said that Japan is the second leading importer of wildlife (animal and plant) products, second to the United States. For example, according to trade statistics, Japan imported 300 tons of elephant tusk from Africa last year, and they were valued at 5,364 million yen. Thus, the world's conservationists are pointing their fingers at Japan for contributing towards the demise of the African elephants. For this reason, Japan signed the treaty and became the 69th country to become signatory to the Washington Treaty (international treaty on the trade in endangered species). Dr. Ohara further stated that he would like to see a general upwelling of sentiment among the citizenry towards wildlife conservation.

END OF KOBE PRESS STORY

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日本新聞社  
神戸新聞社  
HOOZIS  
日本新聞社

**British Herpetological Society**

~~c/o Zoological Society of London,  
Regent's Park, London, N.W.1.~~

23 FLADGATE RD  
LEYTONSTONE  
LONDON E11 1LX  
ENGLAND

26/5/82

Dear Dr Balazs, Please find enclosed  
cheque for \$10.00 in payment for 50 turtle  
postcards as advertised in MTN.  
With thanks,

Yours sincerely,

Simon Townson

S. TOWNSON

sent  
7/3/82





SSC/RFS/pc

Dr. F. Wayne King  
Director  
Florida State Museum  
University of Florida  
Gainesville  
Florida 32611  
USA

30 March 1981

Dear Wayne,

Just a reminder that we are anxious to hear from you on the following topics, discussed in Delhi.

1. Olivier, Sri Lanka (you have copy of contract correspondence)
  - a) Your assessment of his real equipment needs.
  - b) Evaluation of other relationships, including arrangements with De Alwis for training counterparts and contributing to 1981 Sri Lankan projects.
2. Philippines / Sabah turtle workshop
  - a) Your proposed May trip via Manilla, timing, itinerary and cost estimates.
  - b) Grimwood suggested we contact Tony Parkinson, (Government advisor on wildlife) for tactical ideas. Shall I do this, or would you prefer to?
  - c) As I mentioned in Delhi, Gomez, in his meeting with me in Gland, stressed the need to get greater Mindanao involvement, especially through the University. Could a Manilla workshop also bring key people from Mindanao in spite of poor internal relations? Gomez is less able to give attention to turtle problems now that his UNEP Regional Seas consultancy is so time consuming. (Wee-Lek also had a meeting with Gomez here, and I enclose a copy of his memo on the subject).
3. A further issue: Philippines have still not ratified CITES - which may help explain their absence at Delhi. Perhaps if you go to Manilla you can help push this along.

You probably are aware that in many areas WWF funds are currently at a low ebb (while other ear-marked areas are sitting pretty). Thus funding for many specific purposes, including marine turtles, is no

./..

Dr. F. Wayne King  
Gainesville, Florida 32611, USA

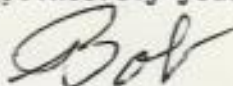
30.3.1981  
- 2 -

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longer merely a matter of project approvals. It may also involve delays and manipulations to suit individual circumstances at the time. We must get an explicit reading on the prospects for funding both your Manilla trip and a subsequent workshop, before we proceed further.

I hope you are in good health. After I got back to Switzerland, I was laid low for about a week with Shigellosis - my souvenir of India. I have been wondering if those peculiar symptoms several of us enjoyed in Delhi could have been associated with this?

*DK, IWT*  
Sincerely yours,



Robert F. Scott  
Executive Officer  
Species Survival Commission

Encl.

cc: Gren Lucas



# Memo

---

To: Robert Scott

From: Chew Wee-Lek *CWL*

Cc:

File Ref: R/33/8 & R/33/6

Date: 30 January 1981

Subject: Turtle Islands: Philippines/Malaysia

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1. This is to confirm what I reported to you verbally on the above subject.
2. I spoke to J. Alvarez and Ed. Gomez on the importance of responding to our offer of assistance to convene the workshop during my meeting with them in Manila just before Xmas.
3. Alvarez agreed to follow it up with Mr. Stanley de Silva with whom he would like to develop the project proposal for IUCN/WWF funding.
4. Ed. Gomez recommended the following procedure:
  - (a) Since the Sulu Seas are practically under the control of Muskims, it is essential that experts in the Mindanao State University be involved. These experts can put everyone in touch with the local people through the Marawi City Campus in Mindanao which has a station in Cagayan Sulu Island from where the Turtle Islands can be reached.
  - (b) For the workshop, best perhaps to hold it in Sabah (Malaysia). IUCN grant should cover the cost of flying Mindanao experts to Sabah plus an observer from Indonesia (some of the turtles also reach Indonesian Islands).
  - (c) The cost of flying Manila experts to Sabah to be covered by Task Force Pawikan of the Philippines, except Gomez who should perhaps be paid by IUCN.
  - (d) Malaysians can pay their own cost: not much if it is held in their own territory.
  - (e) Workshop duration: one week plus a couple of days to see turtles.

(f) Agenda: inter alia, the following are essentials:

- (i) research: emphasis on quantity of harvest and natural replacement.
  - (ii) management: management plan preparation including cooperative efforts between Malaysia & Philippines (and perhaps Indonesia).
  - (iii) education: programme to involve local islanders in managing and protecting their resource.
5. It has been suggested that de Silva be asked to develop the project proposal in collaboration with J. Alvarez, cc to Gomez.
6. Can you follow-up.

CWL/jp/1



George —  
Here's another  
copy (front + back)  
Sorry about the  
missing pg —  
& proof!  
Lynda



WILDLIFE  
AND NATURE PROTECTION  
SOCIETY OF SRI LANKA  
(CEYLON)  
*Established 1894*

CHAITIYA ROAD,  
MARINE DRIVE, FORT.  
Telephone 25248

Colombo.....6th Jan 1982.....

Professor Archie Carr,  
University of Florida,  
Department of Zoology,  
Room 223, Bartram Hall,  
Gainesville FLA 32011,  
U. S. A.

Dear Professor Carr,

I wrote to you some time ago regarding permission to include some photographs from your book "so excellent afish" in an article I was writing on turtles.

The Wildlife & Nature Protection Society of Sri Lanka (WNPS) of which I am a Committee Member wish to have your advice on some aspects of a Turtle Conservation Project we are engaged in. But first, some background information on Sri Lanka and turtles:

Sri Lanka (formerly Ceylon) is an Island of 25,332 sq. miles, situated in the Indian Ocean at the Southern tip of India. It has a population of about 15 million and a coastline of approx. 770 miles. Its location is between approx 5° - 9° North latitude and 79° - 81° East longitude, being about 550 miles North of the Equator.

Five species of Marine Turtles are known to nest on our shores. viz. leatherback, green, loggerhead, hawksbill and olive Ridley. The relative numbers are not known but the loggerhead appears to be the most rare and the olive Ridley the commonest. The flatback may be a very rare straggler in our waters. The recorded nesting sites are shown in the annexed map. Nesting sites on the off shore island (if any) are not known.

Turtles in Sri Lanka, as elsewhere are under severe pressure. It is the usual depressing story of slaughter of beaching turtles (especially in the North of the Island), relentless plunder of eggs and encroachment of traditional nesting beaches for highways dwelling houses and tourist complexes.

The WNPS has been involved in turtle conservation on a small scale since 1970. A hatchery where eggs bought from the plunderers are re-buried and young released into the sea has been established at Palatupane (vide map) at a distance of 200 miles from Colombo on

Cont...2



the South East coast. The breakdown from 1970 to 1980 are approx. 24,000 eggs buried and 14,000 hatchlings released. Hatching rate is about 66%. Unfortunately, the young were not identified prior to release.

As more financial aid has been forthcoming recently, 2 new hatcheries have been established this year at Kosgoda and Bentota (vide map). A record (for us !) 10,000 eggs have been buried at these 2 sites during the past 2 months and our target is 20,000 by March. Hatching should commence about the end of January and we hope to identify all hatchlings prior to release.

Sri Lanka is a predominantly Buddhist country which doctrine preaches that all life is sacred. As such, we feel that a large scale turtle conservation programme is entirely feasible if the problem is approached from the correct angle and adequate financial resources are available for the purchase of eggs and maintenance of hatcheries.

The hatcheries, at present, consists of 20' x 20' cement lined protected enclosures on the beach above the high water mark and a small cement brine-filled tank where hatchling are kept, enpassant, prior to release. The eggs are buried in one mass at a depth of about 2 ft. in an egg chamber 10" in diameter.

We very much wish to have your advice on some aspects of the programme :-

1. Is our technique of reburial of eggs correct ?
2. Should the sand of the hatcheries be changed periodically ? If so, at what intervals ?
3. What degree of moisture is optimal in the hatchery ? How could this be achieved and maintained ?
4. Is the scutal structure of hatchlings different from adults ? Is the method of identification different from that adopted in adults ?
5. How could the hatchlings be sexed ?
6. What is the optimal time for release of hatchlings ?
7. Should the turtles be taken out to sea or allowed to move down the beach to permit "imprinting" ?
8. Is there any way to maximise the hatching rate ?
9. Is "head starting" a suitable method for re-establishing turtle populations ? If so, upto what age should the young be kept and how should they be released with reference to diet and preservation of infection.

10. Could the young be tagged to observe migration and return ?
11. Tagging of adult beaching turtles is entirely feasible. We would like to have a detailed discription of the process and some standard tags in current use.
12. Is tagging being done anywhere close to Sri Lanka ? e.g. India, Pakistan, Malaysia etc. If so could we have the addresses of the groups concerned.
13. Is there any information available about the migration of turtles around Sri Lanka ?
14. The Project is being maintained, at present, by the Victor Hasselblad Trust Fund, which provides moderate financing. Our ultimate goal is to establish a string of hatcheries all along the coast. Would financial support be available from any international source for this purpose ?

Any further advice, information and recent literature on <sup>the</sup> subject would be most welcome.

Thanking you,

Yours sincerely,

*R.S.B. Wickramasinghe*

Dr. R.S.B. Wickramasinghe

*T.S.U. de Zylva*

Dr. T.S.U. de Zylva

SUB COMMITTEE TURTLE CONSERVATION



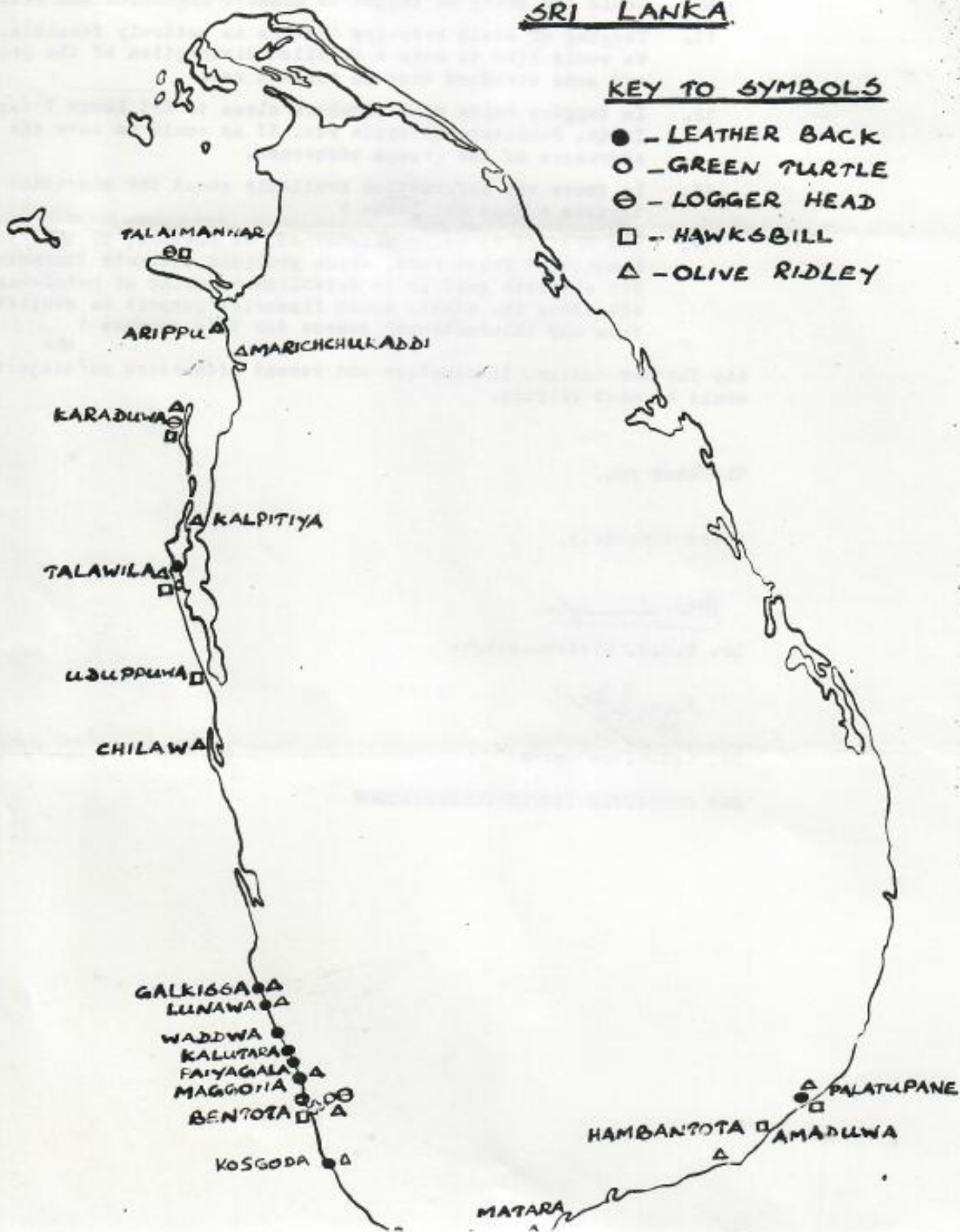
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NESTING SITES OF TURTLES

SRI LANKA

KEY TO SYMBOLS

- - LEATHER BACK
- - GREEN TURTLE
- ⊙ - LOGGER HEAD
- - HAWKSBILL
- △ - OLIVE RIDLEY





WILDLIFE  
AND NATURE PROTECTION  
SOCIETY OF SRI LANKA

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Established 1894

CHAITIYA ROAD,  
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*strong*  
*Nov & Dec*

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We very much wish to have your advice on some aspects of the programme :-

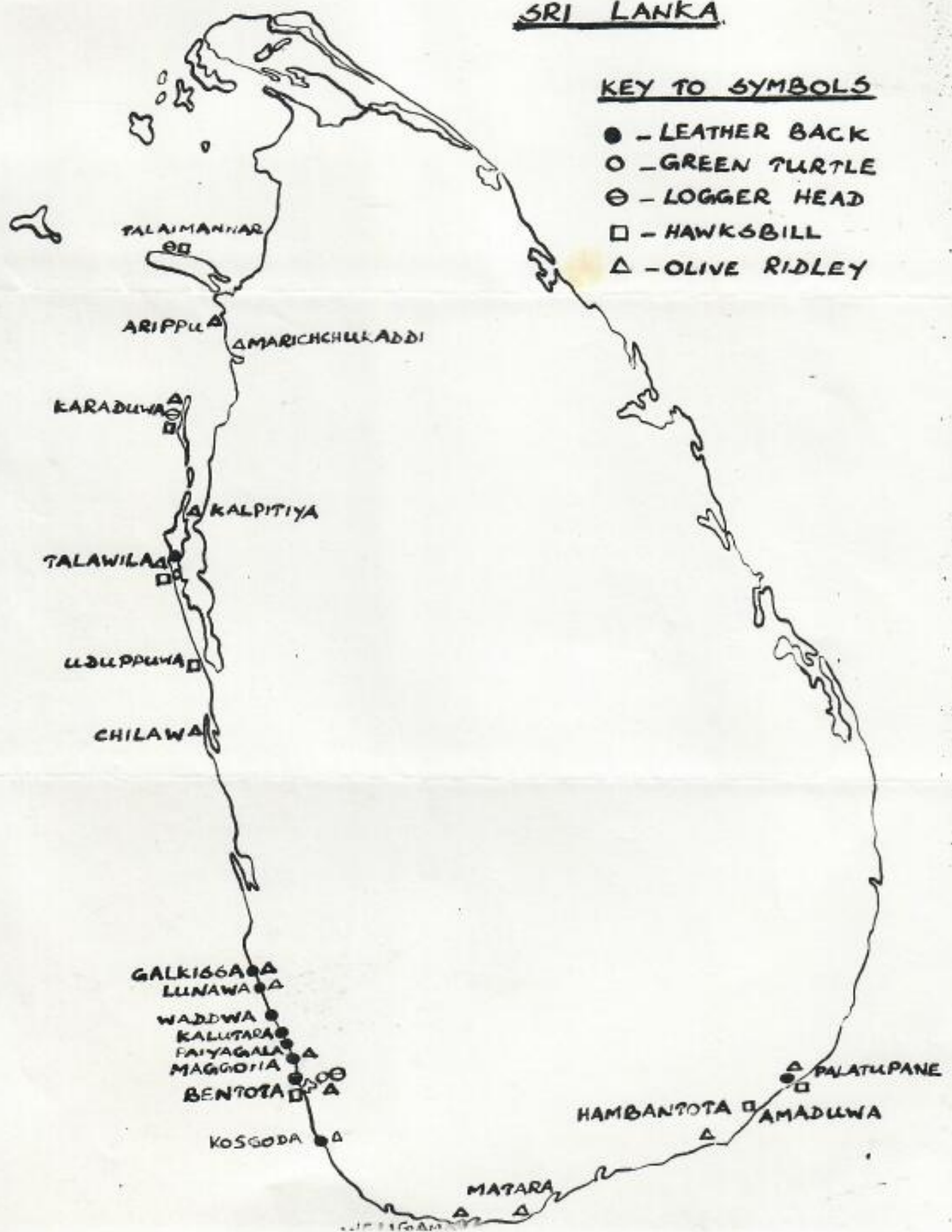
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- - HAWKSBILL
- △ - OLIVE RIDLEY





UNIVERSITY OF FLORIDA  
GAINESVILLE, 32611

- Symposium  
- growth  
- cards  
- strategy  
- fact sheet

DEPARTMENT OF ZOOLOGY  
223 BARTRAM HALL  
904-392-1107

January 29, 1982

Dr. R.S.B. Wickramasinghe  
Dr. T.S.U. de Zylva  
Sub Committee Turtle Conservation  
Wildlife & Nature Protection  
Society of Sri Lanka  
Chaitiua Road  
Marine Drive, Fort.  
Sri Lanka

Gentlemen:

Thank you for your letter of 6 January with information on the sea turtle project being developed there.

In offering answers to your various queries about hatchery procedure, I am following the sequence of your numbered questions, as follows:

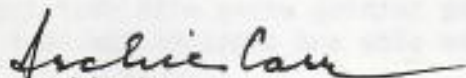
1. I see nothing wrong with your treatment of your eggs - at least in respect to the size and depth of the nest chambers you construct.
2. I am not able to answer this usefully because I have had no experience with a "cement-lined" hatching plot. Why do you consider it advisable to "line" the area? It seems to me that it would be much preferable merely to fence off the plot, and so maintain the moisture regimen of the natural beach. In such a case, as shell fragments accumulate the hatchery can easily be moved to a new clean site.
3. The moisture regimen should not vary markedly from that of the rest of the beach. Its level is not very critical - the sand should simply be moist - not dry, and not sloppy wet.
4. Hatchlings have the same scale characters that are used in identifying the mature turtles.
5. Hatchlings must be killed and carefully dissected and microscopically examined to be sexed.
6. During the night or very early morning - preferably during the night of their emergence.
7. Allow them to move down the beach to the water.
8. Only by increasing the care with which the eggs are handled.
9. Head-starting is a purely experimental management technique, of as yet unproved value. Where hatchlings are very abundant it may be justifiable to rear some to 2 year's age for experimental tagging and release.
10. Hatchlings cannot be tagged for recognition as adults. Two-year-old turtles can be tagged with an inscribed that that might last to maturity; This may, in some cases, justify the head-starting tests mentioned above.

Dr. Wickramasinghe  
Dr. de Zylva  
January 29, 1982  
Page 2

11. Enclosed find a sheet of tagging instructions.
12. I enclose a list of persons with whom you may wish to communicate concerning tagging.
13. Only in the writings of Dr. P.E.P. Deraniyagala, and these must be available there.
14. It might be worthwhile for you to send a project proposal to the World Wildlife Fund in Switzerland (Avenue du Mont-Blanc, CH-1196 Gland, Switzerland).

I enclose some publications that may be of interest. I wish you all success in your work, and hope that if other questions arise you will communicate with me.

Sincerely yours,

  
Archie Carr  
Graduate Research Professor

AC/ljw  
encls.





Republic of the Philippines  
Ministry of Natural Resources

**Bureau of Fisheries and Aquatic Resources**

860 Quezon Ave., Quezon City, Metro Manila 3008

P.O. Box No. 623, Manila

Tel. Nos. 96-54-98 96-54-28

February 9, 1982

Mr. George H. Balazs (Deputy Chairman)  
Hawaii Institute of Marine Biology  
P.O. Box 1346  
Kaneohe, Hawaii  
96744 USA

Dear Mr. Balazs,

It's been a long time since I last heard from you. The Project is very busy with all the eight (8) research projects that is handling which includes the Biological Study of the nesting habit and habitat of green turtle, *Chelonia mydas*. We're on the field most of the time doing surveys and giving coral reef conservation seminar slide show presentation to coastal populace. Before the year 1981 ends we were at Bohol in Central Visayas surveying the areas for possible sites for artificial reefs.

As to our Marine Turtle Study, the project is still following-up the papers of Halog Island as our Marine turtle sanctuary in the Palawan area and so with the appointment of game wardens that will be assigned to man the area.

Am now the one handling this particular study. This was given to me only this year and one of my pet project is the realization of a nationwide marine Turtle Conservation Program with the prime objective of enlightening the people especially the coastal populace on the importance of conserving this marine resource.

The following are the suggested topics:

- A. Marine turtle biology and ecology
- B. Benefits derived from marine turtles
- C. Causes of their extinction
- D. Introduction on marine turtle management
- E. Introduction on artificial rearing of turtles
- F. Introduction to marine turtle sanctuary concept

In this regard, I would like to ask for literature on the the above-mentioned topics especially on the artificial rearing of turtles in Marine Turtle management. We lack references on these subjects and I appreciate it very much if you could send me some.

Thank you very much for your kind attention on this matter.

Very truly yours,



FELICIDAD S. MATILLANO  
Coral Reef Research Project  
Fisheries Research Division  
1184 Ben-Lor Bldg.  
Quezon Avenue, Quezon City  
Philippines





## PEJABAT TAMAN NEGARA BAHAGIAN PANTAI TIMUR

### REGIONAL OFFICE, EAST COAST NATIONAL PARKS

BOX 768, SANDAKAN, SABAH, MALAYSIA. TEL : 42188

CABLES "NATAPARK" SANDAKAN.

Your Ref :

Our Ref : EGNPRO/52/1/118

**CONFIDENTIAL**

15th December, 1981

Mr. George Balazs,  
University of Hawaii at Manoa,  
Hawaii Institute of Marine Biology,  
P. O. Box 1346,  
Coconut Island, Kaneohe,  
Hawaii 96744,  
United States of America.

Dear George,

Many thanks for your letter of 1st December and the enclosures. Having some knowledge of Philippine tactics, it appears that there has been a great deal of "buck passing" up to now. After the Washington conference, Ed maintained a masterly silence and finally said that Alveres was back at his desk. It also appears to me that Bob Scott has hit the nail on the head when he said that there was jockeying for power and responsibility with (Philippine) Government (departments). As Roque appears to have revitalised and lubricated rusty wheels, he may well be the person we may have to depend on.

It was arranged that I should attend the Philippine National Conference. However, a day prior to my leaving, hot air was generated in the State Assembly over the alleged renewal of the Sabah claim by the Philippines. As the matter was just then being debated in the Assembly, Government indicated that it would be embarrassing if I were to appear in the Philippines as the official Sabah delegate. They had no objections whatsoever to my going to the Philippines at any other time. As it was politic not to embarrass or upset Government, I did not attend the conference. Incidentally, the hot air over the Philippine claim has now been waffed away. It is most unfortunate that I could not attend the meeting. If I attended it, the situation regarding turtles could have been probed and possibly assessed. Under the circumstances it is suggested that Bob Scott maintains communication with Dr. Roque so that a workshop or a meeting could be arranged in the Philippines.


( 2 )

Malaysia gets some assistance for a few projects presumably unconnected with Government from various sources in the islamic world and, Middle Eastern conservation consultants, if they are available, may be the answer. But caution is the key word as in the past it was alleged that a certain well known islamic country was involved in supplying arms to Philippine rebels who are also Mussulmans. As far as consultants are concerned, it is best that the Philippine authorities be consulted. This is, in my opinion, a rather delicate matter as the southern islands are still held by rebels to some extent.

I trust you, Linda and the boy are doing well and looking forward to Christmas.

With warm regards and best wishes for Christmas and the New Year.

Yours sincerely,

  
G. S. de Silva

u



中国科学院北京动物研究所  
Peking Institute of Zoology  
Academia Sinica  
Peking, China

January 24, 1982

Dear Dr. Archie Carr:

I am pleased to get your letter of December 16, 1981. I am willing to serve, under your leadership, for another term of three years as a member of the I U C N Marine Turtle Specialist Group.

I will do my best in the work of studying and protecting the seaturtle resources along the coast of the China Sea. Thank you for your concern and help.

Yours sincerely,

黃祝堅

Huang chu-chien



Dear George,  
Just for info.

Dr. A. Carr,  
Chairman IUCN/SSC Marine Turtle Group,  
Department of Zoology,  
University of Florida,  
Gainesville, Florida 32611,  
USA.

14 June 1982

Many thanks for your  
letter to Peter Pritchard. - see p2.

Dear Archie,

Please find enclosed a copy of the Green Turtle Draft. Your corrections and comments would be very much appreciated. Unfortunately the print deadline (end of June) is now so close that I don't think you will have time to review the draft and post your comments to me. The only way I'll get your comments is by telex or telephone, and I plan to phone you in 10 days or so from now (or you can phone me first).

I'm sure one of your comments will be on the status category. Frankly, deciding these categories is a real pain; on the one hand it's a trivial and time consuming process, on the other, it is a potentially important designation.

What category do you think Green Turtle should have? If we accept the argument that in practise all populations behave as good species, the RDB ought to have 'x' separate accounts and 'x' separate categories. We don't have the data to do this. If we try and come up with a single category that somehow adequately represents the overall status of the mydas complex, what should that status be? My own interpretation is 'Vulnerable' (see enclosed definitions of IUCN categories).

As for Leatherback, I think all the arguments one way and another have been aired. My own position is quite simple: I work for IUCN, IUCN wishes to use certain categories (which have fairly precise definitions), and my interpretation is that the data in the RDB account fit the 'Vulnerable' category most appropriately. I believe that to use 'Endangered' for Leatherback and possibly for 'Green' risks devaluing the meaning of the term. When using these categories, we are making a judgement on how soon a species is going to go extinct. Certainly a pretty ridiculous judgement to have to make; but surely species like Kemp's Ridley, G. yniphora, Crocodylus siamensis are an order of magnitude closer to collapse than Leatherback? But, not wishing to go down in history as the idiot who, with a stroke of the pen, wiped out the Leatherback, there may be advantages in bowing to your judgement.



It would be nice, as George Balazs has suggested, to delay any change in RDB status until a Group meeting is held. However, for various practical and political reasons we are committed to this June print deadline, and it seems unwise to get some possibly inappropriate category designations enshrined in the book until its next revision a few years hence. Of course any changes decided at the meeting would be incorporated in our data base, which will be used for many purposes other than straight RDB production.

I have toyed with the idea of re-writing the sea turtle accounts into a single booklet, replacing most of the distribution text with maps, adding pictures and collecting all references to the end (so saving space). If this were to happen, it would be a suitable vehicle to publicize changes in status designations.

The account has come out too long, but I'm not sure how to cut it down (except by summarising the distribution data, and losing all the detail).

Anyway, sorry to impose on you and the group again, and with this urgency, I'll be off your back soon!

With best wishes to you, Anne and Karen,

Yours sincerely,

Brian Groombridge.

cc Anne Meylan,  
Karen Bjorndal,  
G. Balazs,  
P.C.H. Pritchard,  
J.P. Ross.

# MUSEO NACIONAL DE HISTORIA NATURAL

---

PLAZA DE LA CULTURA

César Nicolás Penson  
Santo Domingo, Rep. Dominicana  
Teléfonos: 689-0106/09

180

16 JUN. 1982

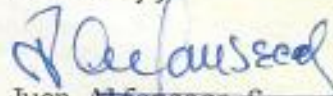
Mr.  
George H. Balazs  
University of Hawaii At Manoa  
P.O. Box 1346 - Coconut Island  
Kanehoe, Hawaii 96744

Dear Mr. Balazs :

We are very glad to send you the posters entitled  
("Camino a la Extinción") that you kindly requested to J.A.  
Ottenwalder. There is no cost involved.

Hoping to be of further help to you.

Sincerely,



Juan Alfonseca S.  
Public Relations Dpt.

JA/ic





**Sea Turtle  
Rescue  
Fund**

June 1, 1982

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

Dear George:

I have enclosed the materials you requested in your two most recent letters. I hope that they meet your needs.

Jim has left for the West coast, although he will be spending a week at Rancho Nuevo observing the Kemp's ridley project. There is no doubt that he has left a considerable gap at the Center, which it will be difficult for anyone to fill. We have found someone to take his position on October 1. Emily Roet has been working for TRAFFIC, compiling trade statistics on endangered and threatened species. She is quite enthusiastic about working at the Center on sea turtles.

I do hope that you will keep in touch. Our ability to act effectively in Washington depends so much upon hearing from people in the field who care as we do.

Sincerely,

Michael Weber  
Marine Habitat Director

DEPARTMENT OF BIOLOGY

HEAD OF DEPARTMENT  
DR BRYAN ROTHWELL

CJP:KR

*CR address*  
*file MTC*

14th May, 1982

Prof. A. Car,  
Department of Zoology,  
University of Florida,  
GAINESVILLE, FL 32611, U.S.A.

Dear Archie,

I have just received the second inquiry  
(dated 4th May, 1982) of your 16th December, 1981  
memo re reappointment to the I.U.C.N. Marine  
Turtle Specialists Group.

In case it has gone missing in the mail I  
attach a copy of my letter of 27th April, 1982.

Apologies for the inconvenience.

Yours sincerely,

*John Parmenter*  
.....  
C.J. PARMENTER



CJP:LK.

27th April, 1982.

Prof. A. Carr,  
Dept. Zoology,  
University of Florida,  
GAINESVILLE, FL 32611,  
U.S.A.

Dear Archie,

It has indirectly reached my attention that formal acceptance is required to your invitation to serve another three year term as a member of the IUCN Marine Turtle Specialist Group (dated 16 December 1981).

I am pleased to accept this invitation and apologise for any inconvenience caused by my oversight in not replying earlier.

Yours sincerely,

DR. C.J. PARMENTER

  
14/5/82

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

May, 11 1982

Dear Dr. Balazs,

This is to thank you for sending me a copy of the sea turtle poster. I enclose a poster which we issued last year as well as a copy of our project's interim report.

Yours sincerely,

*Penny Marinos*

Penny Marinos

Encl.: (1)

P. Marinos  
National Council for Physical  
Planning and the Environment  
Secretariat  
Ministry of Coordination  
Zalokosta 1, Athens  
Greece

PM/nd.



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17 June 1982

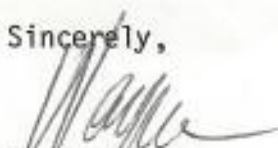
Dr. George Balazs  
Hawaii Institute of Marine Biology  
University of Hawaii at Manoa  
P. O. Box 1346  
Coconut Island  
Kaneohe, Hawaii 96744

Dear George:

The newspaper clipping from the Kobe Press (see enclosed copy) is a rather garbled announcement of the establishment of a TRAFFIC office in Japan. Tom Milliken is a friend of Nicole Duplaix's and mine and is the driving force behind the new office. He teaches at one of the colleges in Tokyo and has earned the respect of a number of Japanese conservationists. He is getting the office staffed up with young Japanese environmentalists and hopes to have it secure enough within a few years that it will continue after he has left Japan. If you have any particular questions concerning Japanese trade in wildlife products, you might direct your questions to Tom. His address is:

3-31-9 Uehara  
Shibuya-ku  
Tokyo, Japan 151

Sincerely,

  
F. Wayne King  
Director

FWK:ss  
Enclosure





*Translated by Mr. Tamio Otsu of  
the NMFS Honolulu Lab*

Source: KOBE PRESS, May 14, 1982 edition.

#### JAPAN'S HAPHAZARD ANIMAL CONSERVATION RECORD BRINGS "G-MEN" TO JAPAN.

....Special dispatch from Geneva, May 13....The World Wildlife Fund (WWF) and the International Union for Conservation of Nature and Natural Resources (IUCN) on May 13 announced the establishment of a "Japan Wildlife Surveillance" office in Tokyo. The purpose of the office is to see that Japan complies with the international treaty in its trade in wildlife products. The WWF and IUCN also reported on Japan's recent imports, noting that Japan has an extremely bad reputation among the world's conservationists.

In 1980, Japan had ratified the international treaty concerning trade in endangered species products. The establishment of the Tokyo surveillance office by the WWF and IUCN is based on this treaty, and Japan's office is the fourth one after offices in the U.S., West Germany, and England.

The Director of the Tokyo office will be conservationist Dr. Tom Millikan of the U.S. who is extremely fluent in the Japanese language. Japan has appointed Dr. H. Kujiraoka, former Director-General of the Environmental Agency, and Dr. Hideo Ohara, among others, to serve on the Board of Inquiry which will work in cooperation with the office.

Pertaining to the establishment of this office, WWF and IUCN issued a statement as follows:

"Japan is the world's leading trader in wildlife products, and is also the leading consumer nation. Although Japan has ratified the international treaty, she has continued to flaunt its provisions. Japan has shown very little inclination toward the conservation of endangered species. The Tokyo office will cooperate with Japanese Customs authorities to ensure that Japan abides by the provisions of the treaty, and will also make an effort toward educating the citizens of the nation on conservation needs. Thus, this office should play a vital role in the protection of the world's endangered species."

According to the WWF and IUCN, Japan is responsible for one-third of the world's trade in birds (and bird products) and practically all of the trade in musk and turtle shells. Also, Japan is second to West Germany in the fur trade. She is also the leading nation in importing sea shells, corals, snake and lizard skins, butterflies, and tropical fishes.

The Government of Nepal, whose existing stock of musk deer has greatly decreased, has prohibited the export of musk from Nepal since 1973. However, the black market has been very active since, and last year Japan imported 25 kilogram of musk oil from Nepal, and about double the volume of a year previously, from China. Furthermore, Japan is the world's leading importer of elephant tusks. Japan and Hong Kong have imported 80% of the tusks from Africa. Japan was also prominent as an importer of rhinoceros horns, having imported 800 kilogram last year.

Dr. Hideo Ohara, Zoologist, said that Japan is the second leading importer of wildlife (animal and plant) products, second to the United States. For example, according to trade statistics, Japan imported 300 tons of elephant tusk from Africa last year, and they were valued at 5,364 million yen. Thus, the world's conservationists are pointing their fingers at Japan for contributing towards the demise of the African elephants. For this reason, Japan signed the treaty and became the 69th country to become signatory to the Washington Treaty (international treaty on the trade in endangered species). Dr. Ohara further stated that he would like to see a general upwelling of sentiment among the citizenry towards wildlife conservation.

END OF KOBE PRESS STORY



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In your reply, please refer to:  
En répondant, veuillez rappeler:

SSC/RFS/sn

Dr. G.H. Balazs  
Institute of Marine Biology  
Box 1346, Coconut Island  
Kaneohe, Hawaii 96744  
USA

10 June 1982

Dear George,

Thanks for the copy of your reply to Peter Pritchard about the leatherback. The subject was discussed by the SSC Steering Committee at Gland in March, and a copy of the unedited draft minutes is enclosed, with the appropriate section marked.

Could we also have a copy of Pritchard's incoming?

Best wishes,



Robert F. Scott  
Executive Officer  
Species Survival Commission

cc: Carr (Fla)  
Groombridge  
(SCMU)

Encl.

## 12. WCS PROJECT

Mike Cockerell described the project being developed for follow-up to the World Conservation Strategy. A provisional list of countries to be selected for attention has been prepared and widely circulated for comment. The status of Greece as a key "developed" country needing action was discussed together with the rationale behind several of the South American choices. It was acknowledged that a Portuguese translation of the WCS was greatly needed.

## 13. CMC PROGRAMME AND ADMINISTRATION

Gren Lucas provided an overview of present CMC operation. This was supplemented with details provided by Tony Mence and comments by Peter Sand. It was noted that the CMC was already working at full capacity and that any extra workload would put first-line RDB objectives at risk. Requests for tie-ins to CMC will increase and we may need to adapt CMC's programme to aid such outside users. It was agreed the £15 to 20'000 required to upgrade CMC's equipment was essential to maintain projected development. It was agreed that Tony Mence should prepare a document to publicize CMC's present functions and future potential. A document such as this would be also useful for fund-raising. The relationship of SSC with CMC was discussed and the need acknowledged for a management document which would identify such relationships and ensure proper control.

Some technical problems involving application of the "endangered" categories were also taken up. The status of the leatherback turtle was taken as an example. The species was formerly listed as "endangered" but new information had shown that world populations were probably much larger than heretofore believed. Nevertheless, the species is being heavily exploited and concern was felt that if it was downgraded from "endangered" to "vulnerable" it would lessen the degree of protection and lead to even more heavy exploitation. It was agreed, however, that in order to maintain scientific credibility, the existing categories must continue to be strictly and objectively applied. In this case, the leatherback would be listed as "vulnerable" but it was also agreed that a supporting statement should also be issued calling attention to the potential dangers of any increased exploitation. In order to aid RDB compilers and give guidance for similar situations, these problems need to be further discussed as an agenda item for the SSC meeting in Kuala Lumpur.

Although RDB categories heretofore have applied to species as genetic resources, the possibility of also listing some species (marine fish for example) according to their vulnerability and degree of threat as economic resources was further discussed. It was agreed that any innovation in this direction should first be preceded by discussions with FAO. (See also Item 6).

## 14. MIDDLE EAST PROGRAMMES (continued)

### Oryx Reintroduction

Ralph Daly showed a video tape of Prince Philips' visit to the Oryx reintroduction site in Oman and provided an accompanying description of progress on this project. The need for obtaining additional oryx for Oman was reiterated (see also Item 1).





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Mr. George H. Balazs  
P.O.B. 1346

Kaneohe, Hawaii 96744

USA

Zürich, den June 1, 1982

Ho/fh

Dear George

Thank you very much for the various aids you mailed me. I really appreciate your help! In the meantime I have been able to prepare the CITES ID sheets in the draft version and I shall mail a set to you as soon as they are neatly typed. Your commentary will then be welcome.

As to your question on RDB categories: I usually suggested the status cat after consulting with the groups. In many cases the final decision was with me, because of no or late replies.

Again thanks for your help!

Sincerely yours

René E. Honegger  
Curator of Herpetology

18 MAY 82  
COSMOLEDO

Dear George,

I hope this finds you very well. I am very well indeed. I'm still out here on Cosmoledo. In one week I'm going out to Aldabra on a yacht which is coming out especially for me. Then I'll stay out on Aldabra until late June (about a month) when Cing Tui makes its regularly scheduled once-in-four-month trip to the Southern Island Group. I'm starting to look forward to getting back to Mahé, but Aldabra is such a wonderland that I'm sure I'll find one month to be too short.

I'm happy with the way my work has been going out here on Cosmoledo. I've tagged about 100 green turtles (and have gotten lots of recaptures on these), I've also gotten data from 60 slaughtered hawksbills, + about 12 slaughtered greens. Besides that I've learned a lot about the methods of turtle hunting out here, how much there is, what becomes of the products, and generally the attitudes of people here towards the animals.

Lately, I've been working quite diligently on getting my Ascension papers ready for publication. I'll be making a visit to the States in August (I hope) and may stay as long as two months. I'm not all that anxious to leave Seychelles, but it will be fun and productive to go home for a ~~well~~ while. I've already been here 15 months. I'm very used to Seychelles and the people, and am also very fond of both.

For me this is certainly the most difficult job I've ever done and Seychelles is the most difficult place I've ever had to get accustomed to. I am rather proud of myself for "conquering" both (job + country) ~~to~~ at least to <sup>MYSELF</sup> my own satisfaction. For most expatriates it is not nearly so difficult: they live in fancy houses on Mahé and rarely leave the main island. Except



for vacations. They never learn to speak Creole and rarely associate with Seychellois except when they go shopping. They band together with other expatriates and the biggest difference they notice between Seychelles and their homeland is nicer weather here in Seychelles. I, however, travel almost constantly since I must become familiar with both the turtles and people on almost 100 islands spread over 750 miles of ocean (straight-line distance). My accommodations are virtually always shoddy (I've <sup>ALMOST</sup> forgotten what electricity and running water are like.) The food is really quite yucky, although I am actually starting to like it. (I'm afraid I'll never crave it, though.) Seychellois are very different from other people I've dealt with and they took some getting used to, although now I am really very used to them. However, I have absolutely no regrets about taking the job. In fact, I may stay at least an extra year depending on the finances of my Grant and those of the Dept. of Agriculture. I'm really not writing this just to brag to you about how wonderful I am. I guess I'm just trying to explain my position. Poor George, you were the unfortunate recipient of a number of morbid letters from me during my first couple months out here. I hate to have you think that I am generally <sup>FIND IT DIFFICULT</sup> ~~unable~~ to adapt to a new environment and situations. I think that this situation is really rather extreme, ~~as~~ compared to most working situations.

I hope all is going well with your work, and that your wife and son are both well. I hope the yacht brings out a letter from you. If so I'll write you before we arrive on Aldabra.

Best regards,

Jeanne



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WELD ASSEBLIEF ONS VERWYSINGSNOMMER

14 June 1982

Mr George H. Balazs  
Hawaii Institute of Marine Biology  
P.O. Box 1346, Coconut Island  
Kaneohe, Hawaii 96744  
U S A

Dear George,

Many thanks for the posters, letters to Burchard and the IUCN guidelines. I note the bit about the money. Clearly we shall have to better organise our travel monies here.

A bundle of papers will go off to Burchard with an appropriate letter  
..... (copy enclosed). We incidentally had a reasonably quiet season and I  
..... enclose also a copy of a brief report on the subject.

So far no joy with our stamps although our local sponsors remain very enthusiastic. Our Post Office only does a certain number of 'specials' each year and we are competing with everybody for a special.

Yours sincerely,

DR. G. R. HUGHES  
ASSISTANT DIRECTOR CONSERVATION  
for DIRECTOR

GRH/lcb



Please address communications to the Director  
Geliewe alle briefwisseling aan die Direkteur te rig



E. 6/1

14 June 1982

Dr John E. Burchard  
U.P.M. Box 1903  
University of Petroleum & Minerals  
Box 1-4, Dhahran International Airport  
SAUDI ARABIA

Dear Dr Burchard,

I have just received a copy of your letter to George Balasz and am both delighted and dismayed with its contents. It is indeed pleasing to hear of some more turtle breeding grounds and not insignificant ones at that, but it is alarming to hear of the possible threat to their survival in the area.

It is highly doubtful that any plea for conservation measures emanating from here would receive much attention but as a member of the Specialist Group with extensive experience in Africa I commend your efforts and should you consider some well-directed support may help please do not hesitate to ask.

Under separate cover I have sent you a bundle of literature from our research work down here which will reach you some time after this letter I'm afraid.

Should you have any spare copies of the 'Biotopes' I should be very interested in receiving one.

May I wish you every good luck in your work.

Yours sincerely,



Yours sincerely,  
DR G.R. HUGHES  
ASSISTANT DIRECTOR CONSERVATION  
for DIRECTOR

G. R. HUGHES

ASSISTANT DIRECTOR ADMINISTRATION

- (a) TITLE : THE TONGALAND SEA TURTLE RESEARCH PROGRAMME
- (b) MANAGEMENT PROBLEM : There is no existing management problem but continuous monitoring of population levels and migration rates is necessary in order that possible future exploitation will have a sound data base.
- (c) STUDY AREA : Tongaland coast south of the Kosi Bay Estuary mouth.
- (d) DATE OF COMMENCEMENT : 1963
- (e) DATE OF TERMINATION : Indefinite
- (f) CURRENT PROGRESS : 1981/82 season

<u>LEATHERBACKS - Dermochelys coriacea</u>	<u>1981/82</u>	<u>Previous Highest No.</u>
Total number females handled	: 65	82 (1980/81)
Recoveries of females previously tagged	: 34	37 (1980/81)
Remigration rate	: 52,3%	50,7(1977/78)
<u>LOGGERHEADS - Caretta caretta</u>		
Total number females handled	: 361	408 (1978/79)
Recoveries of females previously tagged	: 123	177 (1975/76)
Remigration rate	: 34,1%	50,6(1975/76)

NOTES : The leatherback population was a little disappointing this year after the encouraging increases of the past two years. The loggerhead rate seems to be steadying around 30 - 40% level.

Hatchling tagging was once again disappointing with only 5 634 being marked by notching out two scales along the carapace margin. 114 574 hatchlings have now been notched and released but no notched adults were found this season.

Similarly on 21 - 23 March 1982 following a violent south-easter many dozens of loggerhead hatchlings were washed ashore in False Bay in the Cape - none bore notches.

- (g) DIFFICULTIES ENCOUNTERED - only the inability to get Inconel tags from the makers in the United States.
- (h) PROPOSED PROGRAMME - continue monitoring.





4 July 82

Dear George,

Your letter and enclosures came. Thanks. I've put Burchard down for the  
MTN.

I don't see anything so objectionable in Peter's remarks about the  
turtle meeting. I think if the officers of the meeting or group want it to  
be a success, they should make some effort to raise some support, or  
subsidy at least, for those who have to travel furthest. SSC policy is  
not immutable. At least the possibility should be explored with WWF USA,  
Chelonia Inst., Sea Turtle Rescue Fund, etc.....

Please could you send as soon as possible a preprint of your article  
on leatherbacks in squid nets ( ? Oryx), plus correct reference. I am  
hoping to complete the revisions on the leatherback book this summer, and  
would like to include mention of this. The book has been accepted by the  
Harvard University Press, but I'm not sure if they will permit enough  
photos, so arrangements have not been finalized.

best wishes,



University of Toronto

TORONTO, CANADA

MSS 1A1

DEPARTMENT OF PSYCHOLOGY

9 Feb 1982

George,

This is all I have on the  
Tanzanian Island -

I know very little about Brazil &  
turtles - One of my boxes of correspondence with  
IUCN is that they never answered any of  
my requests for information about what projects  
were being supported there -

Dr. P.E. Vanzolini  
Museu de Zoologia da Universidade  
de São Paulo  
São Paulo, Brazil

best wishes,

N. Wilson

you could try  
Vanzolini - he  
might reply



Paul A. Sciria  
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1701 EAST 12th STREET † THE PARK  
SUITE 3 S WEST † CLEVELAND, OHIO 44114

30 March 1982

Professor Nicholas Mrosovsky  
Department of Zoology  
Ramsay Wright Zoological Laboratories  
25 Harbord Street  
Toronto, Ontario M 5 S 1 A 1  
C A N A D A

Dear Professor Mrosovsky:

Just a brief note to thank you very much for sending me the Sea Turtle Newsletter. I really appreciate it and look forward to each new issue.

You probably do not remember me but I am the chap from the NBC TV station in Cleveland who was going around the 1979 Sea Turtle Conference at the State Department preaching the gospel of public relations and effective communications as a means of saving these animals. I had the two posters I was proposing as a way of getting the message out.

Since that time I have left television news and am working in public relations. I have not lost my interest in sea turtles and have been doing PR consulting for the Center for Environmental Education which has taken over the "public relations" function of this effort as you know. I helped them hire their current Director of Information Ken Reigner who is very good and very "well connected" on capitol hill.

I am sending you with this letter an item that will interest you, though it is very sad. I have advised Ken to call the Tanzanian Embassy and get a copy of the original Daily News which I assume is Dar Es Salaam's major english language daily when it arrives in Washington. I will ask him to send you a copy if he gets it.

This item moved on United Press International "A" wire on 25 March 1982 at 3:18 PM.

Keep up the good work !

Cordially,  
*Andy Guthe*

051M

0 1  
TURTLES 3-25

DAR ES SALAAM, TANZANIA (UPI) -- A TINY ISLAND WHICH WAS THE PRIMARY NESTING PLACE FOR SEA TURTLES ON THE EAST AFRICAN COAST HAS DISAPPEARED BENEATH THE SEA, THE DAILY NEWS REPORTED THURSDAY.

THE GOVERNMENT NEWSPAPER SAID TWO RESEARCHERS WERE SENT TO MAZINI ISLAND, NEAR PANGANI ON THE NORTHERN TANZANIAN COAST, AFTER THE FISHERIES INSTITUTE RECEIVED REPORTS THAT THE UNINHABITED ISLAND WAS BEING WASHED AWAY BY THE SEA. THE RESEARCHERS FOUND NO TRACE OF THE ISLAND OR OF THE TURTLES THAT HAD NESTED THERE, THE REPORT SAID.

THE ISLAND HAD ACCOMMODATED THREE TYPES OF TURTLE: THE OLIVER RIDLEY, WHICH WAS NOT KNOWN TO NEST ANYWHERE ELSE IN EAST AFRICA; THE GREEN TURTLE, WHICH HAD HALF OF ITS EAST AFRICAN POPULATION ON MAZINI; AND THE HAWKSBILL, WHICH HAD HALF OF ITS KNOWN POPULATION ON THE ISLAND.

THE RESEARCHERS TOLD THE NEWSPAPER THE ISLAND WAS SWEEP AWAY BY SAND EROSION.

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## Advisory Service

June 7, 1982

Mr. George Balazs  
Assistant Marine Biologist  
Hawaii Institute for Marine Biology  
P.O. Box 1346  
Kaneohe, Hawaii 96744

Dear George:

I have read with interest your preliminary drafts for possible year 16-17 research on sea turtles at the island of Hawaii and American Samoa. Of course, I am particularly interested in the Big Island work, and would be happy to cooperate on the project. Best of luck with your proposal, and thanks for the poster.

Aloha,

Pete Hendricks  
West Hawaii Agent

Ph/kg

xc: Bruce Miller

# newscientist

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George Balazs  
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9 June 1982

Dear George

Many thanks for the poster, which now adorns an otherwise unaesthetic office.

There's trouble brewing here, with the German "Save the Turtles" campaign saying some outspoken things about the Indonesians and, more particularly, Cayman Turtle Farms. I don't know what's going to come of it all.

I enclose a little something for you, with all best wishes.

Yours



DR JEREMY CHERFAS  
Life Sciences Consultant

Enc.