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A GUIDE TO	* *
SEA TURILE CONSERVATION	* * * *
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MARCH 1986	★ ★ ★
POHNPEI STATE	* * *
FEDERATED STATES OF MICRONESIA	* * *
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P.O. Box 160 Pohnpei, Federated States of Micronesia 96941

BY: Teresa L. Herring Peace Corps Volunteer

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I. PREFACE

The purpose of this guide is to organize and document the work that I have done since March 1985 relating to sea turtle conservation, population assessment and tagging. It is important to note that this work has only established the basic groundwork for sea turtle conservation awareness. Only by the continuation of public conservation education, tagging and management projects and enforcement of sea turtle laws will the sea turtles of Micronesia have a chance for continued survival.

II. ACKNOWLEDGMENTS

Gratitude and acknowledgment are due to the following people for their advice, support and technical assistance: Dr. George H. Balazs, National Marine Fisheries Service, Hawaii; Mike Gawel, FSM Department of Resources and Development; Flinn Curren and Tashiro Ludwig, Pohnpei Marine Resources Division; Kikuo Apis and Tony Actouka, Department of Conservation and Resources Surveillence; Mike McCoy, Micronesian Maritime Authority; Shem Jimmy; Outer Islands Affair Office; Alex Luzama, Economic Development Authority; Anson Chong, formerly of Economic Development Authority; Peace Corps Volunteers of Pohnpei State; Pohnpei State Outer Island residents; Kosrae State residents; and special thanks are due to the 1985 Oroluk Atoll sea turtle conservation team, Akapito Semens, Roy Lawson and Oroluk residents.

III. INTRODUCTION

Micronesia's sea turtles are a valuable food resource. The meat provides an important source of nutrition to the people of the FSM in their subsistence lifestyle. A decline in the sea turtle population will adversely effect the availability of the food resource.

The two main species of sea turtle utilizing Pohnpei State Outer Islands (Oroluk, Ngatik, Nukuoru, Kapingamarangi, Mokil and Pingelap) as nesting grounds are the hawksbill turtle (<u>Eretmochelys imbricata</u>) and green turtle (<u>Chelonia mydas</u>). Due to the current population status of sea turtles, the hawksbill turtle is listed as endangered of extinction and the green turtle is listed as threatened of extinction. Therefore, certain hunting restrictions exist in Micronesia.

The two other species of sea turtle observed inhabiting these waters are the leatherback turtle (<u>Dermochelys coriacea</u>) and olive ridley turtle (<u>Lepidochelys olivacea</u>). The latter species, olive ridley, was identified by me according to the descriptions I received by the residents who reported the observations. Information on the sea turtles and their nesting grounds on the outer islands previously mentioned, with special emphasis on Oroluk Atoll, is included in this guide. However, the information given on these outer islands is very general and no map scale is given. Mainly, this outer island information was collected to inspire further investigations of each island's turtle nesting grounds and populations. The contents of this guide, also, include: turtle tagging instructions; hatchling headstart methods; sea turtle laws; sea turtle pictures with identifying characteristics; 1985 Oroluk sea turtle project final report and record of fund expenditures; 1986 Oroluk sea turtle project proposal. In addition, there is a final section including two useful publications referring to turtles of Micronesia and a list of other publication references relating to sea turtles in general.

IV. TURTLE TAGGING AND CONSERVATION PLAN

A. Tags and Applicator

- <u>Tags</u>: In 1985, fifty tags of numbers #4301-4350, tag applicator and measuring tape were provided by Dr. George H. Balazs, Wildlife Biologist for National Marine Fisheries Service, P.O. Box 3830, Honolulu, Hawaii 96812. It is important to use the tags in sequential order. Since these tags are very valuable, all bent, broken and unused tags must be returned to Dr. Balazs at the above address. Any lost tags should be reported, also. A turtle must be larger than 17 inches before it can be tagged because the tags may interfere with a smaller turtle's swimming ability or cause it to get trapped or snagged by a net or floating debris in the sea.
- 2) <u>Applicator</u>: When tags are applied be sure it is fully locked; use plier if necessary (see Appendix A). Keep the tag applicator clean, dry and salt free. The applicator should open and close very freely; lubricate when needed.

B. Instructions for Tagging and Data Collection **

- Seasonality: The major season for turtle nesting is known to be from May- September. Some reports indicate that December and January are nesting months also. After a nest is laid the the eggs hatch in about 60 days (incubation period). One female turtle may nest 1- 5 times per season.
- 2) <u>Tagging</u>; <u>Measuring</u>; <u>Recording Data</u>: As one proceeds with a turtle tagging program, it is vital to know that most turtle tagging occurs during the night time hours because this is when the female turtle crawls on the beach to dig a nest and lay her eggs. Nesting time can be from sunset to sunrise, therefore continuous monitoring of the beach or nesting grounds for crawl tracks must be conducted during all the nighttime hours. Any artifical lighting, such as: fire, flashlight, lantern and lightbulb and loud noises will frighten the turtle and cause her to return to the sea. She may return at a later time to nest or her eggs may be uncontrollably dropped at sea to be destroyed. It is most important to minimize lights and noises during the nesting season.

Following the turtle's digging her nest and laying her first 4-5 eggs, a flashlight can be turned on to help with observations, measuring and counting of eggs. Count the number eggs, measure the length of carapare (shell length) and observe flippers for old tags or other identifiable characteristics(see Appendix A). Record all data on data sheet (see Lample data sheet, pg.10). After the turtle completes laying eggs, covers the nest and begins returning to the sea, then turn her over on her back and, again, look for old tags. If old tags are found, record information from the tags, such as numbers, location and address. ONLY if the original old tags are corroded and falling apart, then remove and save old tags. Apply two new tags. The remains of the ruined removed tags should be sent to Dr. Balazs, Hawaii. Record information from old and new tags on to data sheet.

Be careful to apply tags in the fleshy loose skin; NOT in muscle, scale or bone. One tag is placed on the front right flipper and the other tag is placed on the front left flipper (see Appendix A).

If the turtle crawled out of the sea and on to the beach, but does not nest and returns to the sea, then this behavior should be recorded as a "false crawl". Repeat above instructions: measure, turn over, look for tags (record if any), apply 2 new tags, complete data sheet. Try to determine why she did not nest.

The same turtle may nest several times per season. If you see the same turtle you tagged before, then record tag number and note this occurrence on the data sheet.

- 3) Important: Keep all data sheets clean and safe. It is good practice to record information from the data sheet into a notebook or logbook, incase the data sheets are lost or ruined. It is impossible to replicate lost data. Store all recorded data sheets in the safety of a hut, house or office.
- 4) Other Important Work to Consider:
 - (a) Encourage all island residents to dim lights and minimize noise.
 - (b) Encourage people NOT to kill or hold in pen any tagged turtles.
 - (c) If a tagged turtle is killed, then ask people to return tags to Pohnpei Marine Resources Division.
 - (d) Record sites of mating pairs or single turtles in lagoon or outside reef. Include species type? When? Where?

NOTE: For more information, refer to the <u>1985 Sea Turtle Population</u> Assessment of Oroluk Atoll final report (see pg.11).

** Unless US federal permits are obtained by Pohnpei State or department thereof, the green sea turtle is the only species of turtle allowed to be tagged. The present tagging project was establish as an extension of research conducted by Dr. George Balazs's laboratory, National Marine Fisheries Service, Honolulu, Hawaii.

V. HATCHLING HEADSTART METHODS

Headstart work for hatchlings has been conducted by Oroluk residents for many years. After a nest is laid, logs are placed around the nest to trap the hatchlings to prevent them from returning to the sea. Approximately, 50% of all nests are covered and these hatchlings are contained in an ice chest-type container for 3-4 months and are hand-fed meat. The other 50% of the nests are allowed to hatch naturally without a covering.

Personally, I have not witnessed these methods being conducted, because my visit to Oroluk was a brief 2 hours on June 1, 1985. However, from the information I have gathered about the present headstart methods, I believe that a better and more successful headstart method should be implemented which is best suited for the geography of Oroluk Island and the residents working with the turtles.

Plastic fencing material $(\frac{1}{2} \text{ inch } x \frac{1}{2} \text{ inch mesh size})$ would be a good substitute for the logs for better protection of the eggs and hatchlings from predators, such as: ghost crabs, birds, dogs and pigs. The fence should be buried at least 2 feet in the sand and extend 2 feet above the ground. The circumference (distance around the nest enclosure) of the fence should completely surround the nest (approx. 5 feet diameter). These must be checked several times daily inorder to transfer hatchlings to the water holding areas before they die of heat and sun exposure. Half of these hatchlings should be allowed to go free.

The container holding the hatchlings in the water for headstarting should have a regular free-flow of seawater. One suggestion is a portable cage of $\frac{1}{2}$ " x $\frac{1}{2}$ " plastic aquaculture mesh with frames of wood or reinforcing bars which would allow flushing and moving of the turtles to most suitable habitats on the reef flat. The plastic mesh is important to use because it will minimize abrasion and other damage to the hatchlings during wind and rough water conditions (see Diagram 1). The hatchlings should not be hand-fed but allowed to pursue their food while in the container. Random samples (10%) of caged hatchlings should be measured and carapace length recorded weekly for information on growth rate. Also, when the young turtles are finally released, the location should vary each time inorder to avoid habitual congregation of sharks and other predatorial fish. All young turtles should be released at night to avoid bird predation. Mike Gawel, FSM Chief of Marine Resources, suggests that the adult ghost crab predators can be killed with stones or sticks since they are an abundant and major predator on land. He, also, suggests that a beach seine can be used to capture live small black-tip reef sharks for the acuarium export market (via M/S Micro Glory or Thorfinn vessels to Pohnpei).

Presently, there are many conflicting opinions and recommendations by biologist and turtle conservationists around the world about the best hatchling headstart method. For more information on this subject, see the following publications:

> Klima, E.F. and Mc Vey, J.P. 1982. Headstarting the Kemp's Ridley Turtle, <u>Lepidochelys kempi</u>. In, Bjornal, K. (Ed.). <u>The Biology and Conservation of Sea Turtles</u>. Smithsonian Institution Press. Washington, DC. pg. 481-487.

Reichart, H.A. 1982. Farming and Ranching as a Strategy for Sea Turtle Conservation. In, Bjornal, K. (Ed.). The Biology and Conservation of Sea Turtles. Smithsonian Institution Press. Washington, DC. pg. 465-471. For more information or suggestions on any of the previous information stated, please contact: Mike Gawel, FSM Chief of Marine Resources, Dept. of Resources and Development; Mike McCoy, Director of Micronesian Maritime Authority; Chief of Pohnpei Marine Resources Division; Dr. George H. Balazs, Wildlife Biologist for the National Fisheries Service, Honolulu, Hawaii.





VI. SEA TURTLE LAWS

The following is a list of US Laws and FSM Laws regarding turtle harvesting in the Federated States of Micronesia (see Appendices B & C).

- A. <u>US Laws</u>: These laws were taken from the review document written by Jim Lecky and Gene Nitta, National Marine Fisheries Service, Terminal Island, California, entitled: <u>A Review of Subsistence</u> <u>Uses of Sea Turtle in the Central and Western Pacific with Respect</u> to Federal Regulations Authorizing a Subsistence Take of Green <u>Sea Turtles in the Trust Territory of the Pacific Islands</u>. 1985. (see Appendix B).
 - 1) Residents of TTPI can only take sea turtles "....if such taking is customary, traditional and necessary for the sustemance of such resident and his immediate family."
 - 2) "the taker cannot sell the turtle or its parts and cannot transfer the turtle or its parts to a non-resident."
 - 3) The hawksbill turtle is listed as "endangered" under the Endangered Species Act, "this effectively bans the taking of the hawksbill turtle...".
 - 4) Inorder to protect nesting beaches and the female turtles and eggs located upon the beaches, green sea turtles can be "...taken only while in the water ("...waters seaward of mean low tide")."
- B. FSM Laws: (see Appendix C).
 - 1) The Code of FSM (title 23, section 105) states the limitations on taking of turtles:
 - (a) "No hawksbill turtles or sea turtles shall be taken or intentionally killed while on shore, nor shall their eggs be taken."
 - (b) "....no green turtle shall be taken or killed except whose shell is at least thirty-four inches when measured over the top of the carapace shell lenghtwise."
 - (c) "No sea turtle of any size shall be taken or killed from the first day of June to the Thirty-first day of August inclusive, nor from the first day of December to the thirty-first day of January inclusive."
 - (d) "Notwithstanding any provisions of this section to the contrary, taking of sea turtle and their eggs shall be allowed for scientific purposes when specifically authorized by the High Commissioner."

- 2) The Endangered Species Act (title23, chapter 3, sections 301-317) prohibits taking of hawksbill turtle for any purpose. The Endangered Species List (list 45, chapter 5) gives the endurgered species of TTPI and their geographical ranges.
 - (a) Section 306 states: "It is prohibited for any person to take, engage in commercial activity with, hold possession of, or export any threatened or endangered species of plant or animal or parts thereof, so listed in this chapter or any regulation issued in accordance with this chapter...". (see Endangered Species List).



* HAWKSBILL TURTLE *

FIR/S137 Hawksbill turtle



Carapace (shell): heart-shaped & slightly clongated with jagged edges; hard shell. Plates: overlap one another with jagged edges; used for jewelry.

Head & Flippers: dack brown to black coloration (gets blacker with age);oblong head. Beak: large beak for mouth (similar to geech thatte, but more distinguished); pointed, sharp beak.

Generally, hawkshill turtle is smaller in size than green turtle.

Taken from: Hirth, H.F. 1971. Synopsis of Biological Data on the Green Turtle, <u>Chelonia mydas</u>. University of Utah, Dept. of Biology,Salt Lake City, Utah. pg.2.

* GREEN TURTLE * An adult, female green turtle, <u>Chelonia mydaa</u>, from the Gulf of Aden The green turtle has been called the world'm most valuable reptire (Matz) K. S. 5 Pig.

<u>Carapace</u> (shell):Arched with greenish or olive-brown coloration & sometimes flecked with black; soft shell.

<u>Plates</u>: meet side to side.(no overlapping). <u>Head & Flippers</u>: similar in colection to carapace. Beak: more rounded mouth area.

Generally, green turtle is larger in size than hawksbill.

(sample Only) Aud (**) | | 1 1.1 IUN 10 DATE . (date and time TIME NO. (Ex: 1,2,3...) of nesting) FALSE CRAWL/NEST: SPECIES (green or hawksbill) (circle one) CARAPACE LENGTH: #EGGS: (black side of tape (count the number of measure:centimeter units (CM)) eggs) WEATHER CONDITION (clear sky; rain; wind; hot cold; cloudy sky; etc... LOCATION: (Ex: 1,2,3...same as above) RECORD ON MAP! SANA TEXTURE -- (grain size: fine, rough, small coral pieces, large coral pieces, etc...) VEGETATION LINE-(where the nest is laid, Ex: near bushes or tree, near grass) TIDAL LINE -(where tide line is in relation to nest) I DENTIFIABLE CHARACTERISTICS : (Any interesting markings: cut off flipper, hole in carapace, barnacles, missing eye, etc...) BE SPECIFIC! NOTES: (Draw out locations or draw identifiable characteristics or anything necessary) ********RECORD TAG NUMBERS!!!!!!!!!!!!!

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1985 Sea Turtle Population Assessment of Oroluk Atoll

Teresa L. Herring Peace Corps Volunteer Pohnpei, Federated States of Micronesia

I. INTRODUCTION

Oroluk Atoll is a low coral atoll located northwest of Pohnpei (7°30'N, 155°20'E) (Figure 1). Since the early 1960's until present a group of 6 - 20 Kapingamarangi people have resided on Oroluk Island with Pohnpei government's consent. In the past, residents have observed large numbers of hawksbill sea turtles (Eretmochelys imbricata) and green sea turtles (Chelonia mydas) utilizing Oroluk Island as a nesting ground. Recently, there have been reports of drastic decline in green turtle nesting and little to no hawksbill turtle nesting. A rapid decline in nesting is due to increasing human population pressure, development of previously uninhabited islands and increasing hunting for turtles.

The inhabitants of Oroluk have built a stone holding pen, and turtles are placed within the pen to await the government field trip ship which calls about 4 - 6 times per year. Until recently turtles were loaded aboard the field trip vessel for return to Pohnpei, where they were either sold or eaten in the Kapingamarangi village there. The enforcement of the Endangered Species Act has put a stop to commercialization but subsistence use is still allowed under Federal Law (McCoy, 1982).

Due to the current population status of sea turtles in Micronesia, the hawksbill turtle is listed as endangered and the green turtle is listed as threatened. Therefore, certain hunting restrictions exist.

The nesting season is reported to be from May- September. Pritchard (1982) reports that nesting occurs in December and January, but residents I have interviewed contest this report. The small island near Keltie Pass (Figure 1) was once a turtle nesting ground, but is no longer utilized.

Conservation attempts by residents have existed for many years. Fencing, if available, or logs are placed around approximately 50% of the nests to hold the emerging hatchlings. The hatchlings are held in an ice chest- type container for 3-4 months until the carapace is hard and the turtle large enough to avoid predation. The hatchlings are fed clam meat. The remaining uncovered nests are allowed to hatch naturally. Other conservation methods include: no harvesting of eggs, females are only captured after nesting and, as reported by a recently returned resident, only one turtle is eaten monthly.

The Oroluk project goals for nesting season 1985 were to assess the sea turtle population and tag turtles with identification tags, assess the coconut crab (<u>Birgus latro</u>) population and to make other general resource observations. Oroluk Atoll is a large rookery for various bird species. Future bird population assessments will be conducted. It is important to note that the remoteness of Oroluk Atoll makes transportation and work there difficult.

II. METHODS

Nightly patrols were made from June 1- July 10, 1985 on Oroluk Island (Figures 1&2). As the female turtle was laying er eggs, a straightline carapace length was measured and the number of eggs counted. On her return to the sea she was turned over and two Inconel tags applied, one on each front flipper. All information was recorded on data sheets, including: identification tag numbers, data/time, carapace length, false crawl or nest, number of eggs, nest location, weather conditions and identifiable bodily characteristics (Table 1). A false crawl is defined as an attempt by the female turtle to crawl on land in search of a nest site, but if disturbed she will not nest and return to the sea. Also, old discarded humerus bones were collected and sent to National Marine Fisheries Service, Hawaii, for age dating.

The coconut crab population was assessed almost nightly by randomly selecting a station with 2-4 sampling areas. Each area was stepped- off to be 30-35 sq. meters in size (average 32 sq. meters). In each area were placed 5-7 coconut halves as bait that were allowed to remain for 1-2 hours before counting the crabs. All sized crabs were counted and usually the largest were captured and eaten. The project team observed that the crabs preferred to crawl on grass and coral areas and would not crawl on sandy areas. It should be noted that these crabs may have been repeatedly counted in different stations. Data was collected on the date, time and total number of coconut crabs in each area (Table 3).

III. RESULTS AND DISCUSSION

Turtle #	Tag #	Date/time	Carapace length(cm)	False crawl/Nest	#Eggs
1	4302;4303	6-4-85/0135	110cm	false crawl	
	**	6-11-85/0500	F1	nest	120
2	4304;4305	6 -2 6-85/0105	95cm	false crawl	
3	4306;4307	7-1-85/ 0505	100cm	nest	132
4	4308;4309	7-4-85/0405	1 <u>07cm</u>	nest	128

Table 1. Green sea turtle nesting data at Oroluk Island, June 1 to July 10, 1985.

The green sea turtle was the only species of turtle seen and tagged by the project team. Three nests and two false crawls occurred (Figure 2). Four female turtles were tagged. The project team explained to the Oroluk residents the importance of this work and tagging efforts. The residents agreed not to kill or eat turtles with tags.

The residents of Oroluk reported the total number of nests for each month of the 1985 nesting season (Table 2). The first nest was laid on April 24, 1985.

	<u># of nests</u>
April	1
May	20
June	3
July	18
August	7
September	· 1
October	0
total # nest	<u>s 50</u>

- .

Table 2. Monthly nesting of green turtles at Oroluk Island, 1985.

Table 3. Coconut crab data at Oroluk Island, 1985.

Station #	Date	Time	Area #	# Grabs in each area
1	6/4	2224	1 2 3	9 6 9
2	6/5	2230	4 5 6 7	5 0 4
3	6/6	2343	8 9 10	14 24 23
4	6/8	22 02	11	10
5	6/10	2230	12 13 14	7 6 7
6	6/11	2110	15 16 17	7 3 10
7	6/12	2355	18 19 20	7 3 5
8	6/13	2158	21 22 23	15 . 5
9	6/14	2 205	24 25 26 27	5 3 10
10	6/15	2 215	28 29 30	20 15 30

13

Station #	Date	Time	Area #	# Crabs in each area
11	6/16	22 15	31 32	25 17 20
12	6/17	22 25	34. 35	20 15 13
13	6/18	2156	36 37 38	16 8 20
14	6/19	2240	39 40 41	16 20 15
15	6/20	2302	42 43 44	21 16 21
16	6/21	2113	45 46 47	17 13 15
17	6/22	2 138	48 49 50	24 11 25
18	6/23	2245	51 52 53	15 12 18
19	6/24	2302	54 55 56	13 10 5
20	6/25	2230	57 58 59	15 10 5
21	6/26	2235	60 61 62	10 0 10
22	6/27	2150	63 64 65	5 13 11
23	6/28	2115	66 67 68	3 2 3
24	6/29	2215	69 70 71	3 0 0
25	6/30	2230	72 73 74	0 15 20
26	7/2	2305	75 76 77 78	13 5
and an any statement of the			/0	44

Continued Table 3. Coconut crab data at Oroluk Island, 1985.

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There were 869 coconut crabs counted in 78 areas (26 stations). It is estimated that .35 coconut crabs per square meter inhabit Oroluk Island.

869 total # crabs / 78 areas		11.14 average # crabs	
2496 total # sq. meters / 78 areas		32 average sq. meters	
•		.35 <u>coconut crabs</u> . sq. meter	

Budget

This budget is planned to support a working team of two people for 2 months. These figures are not exact.

A.	Transportation	\$	5160.00
Β.	Provisions (food)		400.00
С.	Equipment		231.00
D.	Labor	1	.000.000
	Total cost	= \$1	791.00

IV. CONCLUSION

The sea turtle is a valuable food resource. The meat provides an important source of nutrition to people of the FSM in their subsistence lifestyle. A decline in the sea turtle population will adversely effect the availability of this food resource. It is obvious that a rapid decline in turtle nesting exists at Oroluk Atoll. Conservation and management measures must be established soon inorder to stabilize and increase the population.

Since the nesting season at Oroluk is reported to be from May to September, an accurate account of the nesting population can not be made if the project team is there for only one month. It is stongly recommended that the turtle assessment work be reported for the full 1986 nesting season at Oroluk Atoll.

Prospective plans exist to establish Oroluk Atoll as a marine reserve. Inorder for these plans to be met, more resource assessment and research work must be conducted.

V. ACKNOWLEDGMENTS

The 1985 sea turtle population assessment project was funded by the Economic Development Authority. Mike Gawel, FSM Chief of Marine Resources, acted as advisor to the project. Dr. George H. Balazs, Wildlife Biologist for National Marine Fisheries Service, Honolulu, Hawaii, provided technical information, permission to tag turtles and supplied the tags. Tashiro Ludwig and Flinn Curren, Pohnpei Marine Resources Division, provided technical assistance. Kikuo Apis and Dan Perrin, Conservation and Resources Surveillence, provided project support. The project was successful due to the hard work of the project team: Akapito Semens, Roy Lawson and the Oroluk residents.

VI. REFERENCES

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- McCoy, Mike A. 1982. Subsistence Hunting of Turtles in the Western Pacific: The Caroline Islands. In, Bjorndal, K. (Ed.). <u>The Biology and</u> <u>Conservation of Sea Turtles</u>. Smithsonian Institution Press, Washington, DC, pp. 275- 280.
- Pritchard, Peter C. H. 1982. Marine Turtles of Micronesia. In, Bjorndal,K.(Ed.). <u>The Biology and Conservation of Sea Turtles</u>. Smithsonian Institution Press, Washington, DC, pp. 263-274.

ORCLUK ATOLL



Figure 1. Location of project



I. FOOD & PERSONAL SUPPLIES:

item <u>returned</u>	item not returned	Item	Quantity	Price(each)	Amount
	x x x x x x x x x x x x x x x x x x x	toilet paper sugar sugar coffee coffee salt peanuts shortening stew soap pears vegetables vegetables vegetables coffee mate flour crackers peanut butter baking powder baking powder soy sauce rice cigarettes	l 1 2 3 1 1 2 2 5 1 1 4 2 1 1 4 2 1 1 4 2 1 1 2 4 1 2 4 1 2 4 1 2 4 1 2 5 1 1 1 2 2 5 1 1 1 2 2 5 1 1 1 2 2 5 1 1 1 2 2 5 1 1 1 2 2 5 1 1 1 2 2 5 1 1 1 2 2 5 1 1 1 2 2 5 1 1 1 2 2 5 1 1 1 2 2 5 1 1 2 2 5 1 1 1 2 2 5 1 1 1 2 2 5 1 1 1 2 2 5 1 1 1 2 2 5 1 1 2 2 5 1 1 1 2 2 5 1 1 1 2 2 5 1 1 1 2 2 1 1 2 2 1 1 2 2 1 1 2 2 1 1 2 2 1 1 2 2 1 1 2 2 1 1 2 2 1 1 2 2 1 1 2 2 1 1 2 2 1 1 2 2 1 1 2 2 1 1 2 2 1 1 2 2 4 1 2 2 1 1 2 2 4 1 2 2 4 1 1 2 4 1 2 2 4 1 1 2 4 1 2 4 1 1 2 4 1 1 2 4 1 1 2 4 1 1 2 4 1 1 2 4 1 1 2 4 1 1 2 4 1 1 2 4 1 1 2 4 1 1 2 4 1 1 2 4 1 1 2 4 1 1 2 4 1 1 2 4 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1	\$1.75 1.45 1.35 4.95 4.05 .60 3.56 2.75 1.69 .89 1.38 .85 .54 1.93 2.95 3.05 1.95 2.46 1.95 2.46 1.95 1.00 1.95 7.25 8.00 total	\$1.75 1.45 2.70 14.85 4.05 .60 7.12 5.50 8.45 .89 1.38 3.40 1.08 1.93 2.95 12.20 1.95 4.92 1.95 4.92 1.95 1.00 3.90 29.00 8.00 =\$121.02
×	II. <u>FI</u>	LD_SUPPIES:	1	8.00	\$8.00
x		watch	1	10.95	10.95
	x	backpack	1	7.95	7.95
	x	lightbulbs(for flash	lite)4	.75	3.00
х		flashlight	2	6.15	12.30
	x	batteries	20	.35	7.00
x		plastic bags	1	1.95	1.95
х		insect repellent	1	3.59	3.59
	x	mosquito coils	5	.75	3.75
	x	film	1	3.25	3.25
х		notebook	1	1.80	1.80
х		plastic sheets	12	.15	1.80
х		pencils	3	.15	.45
х		pens	3	.20	.75
х		portiolio holder	1	4.40	4.40
	x	kerosene	2.Jgailons	1./U/gal.	4.20
х		medical supply		-	7 00
	X	"Tope & cape	-	_	
				total	= \$85.19

TOTAL PROVISION (food & personal supply) COSTS =\$121.02 TOTAL EQUIPMENT (field supply) COSTS..... = 85.19 TOTAL SUPPLY COSTS = \$206.21

 $\stackrel{_{\scriptstyle \ast}}{}$ No receipt available ($\$ taken from petty cash).

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III: LABOR (counterparts: Roy Lawson & Akapito Semens)

A. Counterpart-Roy Lawson:

Pay period:	Payment
6/1 - 6/23/85	\$50.00

B. Counterpart-Akapito Semens: (@ \$1.25/hr x 8hr/day)

Hrs.	Payment
180	\$225.00
144	180,00
24	30,00
80	100.00
88	110.00
64	80.00
	<u>Hrs.</u> 180 144 24 80 88 64

TOTAL LABOR COSTS (A & B) = 775.00

IV. <u>TRANSPORTATION (M/S Micro Glory passenger fare & meals</u>): This covers Peace Corps Volunteer, Teresa Herring, and 2 Counterparts, Akapito Semens and Roy Lawson.

A. Ju	ne 1-11, 1985 (passenger fare & meals):	
	 PCV (round-trip to Nukuoro via Oroluk) 2 CP's (1 way to Oroluk) food allowance (meals) 	\$ 16.20 5.60 5.60 55.00

Tota1....= \$ 82.40

B. July 8-11, 1985 (passenger fare & meals): 1. 2 CP's (1 way return from Oroluk to Pohnpei) 5.60 2. food allowance (meals) 40.00 Total...... \$ 51.20

$[M_{12},M_{12}] = \{0,1\}$

* TOTAL TRANSPORTATION COSTS(A & B)= \$133.60

* Due to the unavailability of bill record from the Pohnpei Transportation Office, this total transportation cost is a close estimate according to the project coordinator's records.

TOTAL DIRECT COSTS FOR 1985 OROLUK SEA TURTLE CONSERVATION PROJECT:

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I. PROVISION (food & personal supply) COSTS	=	\$ 121.02
II. EQUIPMENT (field supply) COSTS	=	85.19
III. LABOR COSTS	=	775.00
IV. TRANSPORTATION COSTS	=	133.60

****** TOTAL DIRECT COSTS.... = \$1,114.81

** This total does not include the PCV Host Agency Allowance of \$30.00/mo. appropriated in the budget of 1985 Oroluk Atoll Sea Turtle Conservation Project Proposal (see page 29).

PROPOSAL FOR

1986 Oroluk Atoll Sea Turtle Conservation Project

Submitted by

Teresa L. Herring Peace Corps Volunteer Marine Resources Division Department of Conservation and Resources Surveillance State of Pohnpei

Date of Submission: October 24,1985

PROJECT PROPOSAL

I.Background Information:

Due to increasing human population pressure, development of previously uninhabited islands and increased hunting for turtles has resulted in a sea turtle population decline. Since the early 1960s residents of Oroluk Atoll have observed large numbers of hawksbill and green sea turtles utilizing Oroluk Island as a nesting ground. Recently, residents have reported a drastic decline in green turtle nesting and little to no hawksbill turtle nesting. A conservation attempt by residents has existed since the early 1960s until present. These residents will be able to continue to utilize turtles for traditional subsistence use. The sea turtle is a valuable food resource. The meat provides an important source of nutrition to local FSM people in their subsistence lifestyle. A decline in the sea turtle population will adversely effect the availability of this food resource.

The principal investigators of this project are: State of Pohnpei Marine Resources Chief, in conjunction with FSM Chief of Marine Resources, Mike Gawel and Peace Corps Volunteer, Teresa L. Herring and Dr. George H. Balazs, Wildlife Biologist for National Marine Fisheries Service, Honolulu, Hawaii.

II. Objective:

As outlined in the FSM Five Year Plan 1985- 1989, the sea turtle conservation is designed to enchance the sea turtle populations of Pohnpei State and FSM by introducing conservation- oriented practices and educating the public about the importance and fragility of this marine species.

The project plans include training Micronesian counterparts in the methods and techniques of data collection, identification tagging, egg protection, nest monitoring, head- starting hatchlings and public conservation education. The nesting season at Oroluk Atoll is reported to be from May to September. The project team will work on Oroluk from May to August, 1986.

Other related marine resources work conducted on Oroluk Atoll will include coconut crab and bird population assessments.

Important: See the attached final report of the 1985 Oroluk Atoll Sea Turtle Conservation Project.

III. Justification:

A. Transportation by M/S MicroGlory	
1. Peace Corps Volunteer	\$16.20
a. May, round-trip to Oroluk to help	
set- up project.	
b. food allowance	100.00
meals provided on field ship.	
@ \$10.00/day x 10 days.	
2. Two Counterparts	
a. May, one- way to Oroluk to begin	11.20
project.	
b. food allowance	100.00
meals provided on ship	
@ \$10.00/day x 5days x 2people.	
3. Two Counterparts	11.20
a. August, one- way return from Oroluk.	
b. food allowance	100.00
meals provided on ship	
€ \$10.00/day x 5days x 2people.	
4. Item	
a. diesel fuel for field ship for two	1600.00
round- trips to Oroluk to deliver and	
retrieve project team (diverting course during	
regular monthly southern trip).	
b. Thorfinn boat to return Peace Corps Volunteer	200.00
to Pohnpei (only if PCV stays on Oroluk for	
2-3weeks).	
c. Emergency charter of M/S MicroGlory	384 4.0 0
(Note: only emergency).	
B. Provisions(food) for two counterparts	600.00
@:\$2.50/day x 120days x 2people	
C. Equipment	
1. batteries for flashligts	22.00
2. fence to cover nests and capture hatchlings	100.00
50ft. @ \$2.00/ft.	
3. wire cutters	20.00
4. kerosene & container for stove and lantern	42.00
5. data sheets, notebook, holder, pencils	15.00
6. insect repellent & coils	23.00
7. miscellaneous	20.00
D. Labor for two counterparts	2400.00
@ \$1.25/hr X 8hr/day x 120days x 2people.	
Total funds required	9230.00
Pohnpei State portion matching funds	4615.00

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IV. Summary

The FSM National Development Plan 1985- 1989 in Chapter ten, Section C (Marine Resources Objectives) calls for the states and FSM to "manage resources for long-term benefits". In the same plan, Section E, 2(i) states: "<u>Turtle conservtion</u>: at selected nesting sites during turtle nesting season, some of the hatchlings will be retained in simple mesh pens and fed until past the stage of high vulnerability, then released. Records and growth measurements will be kept for MRD".

The above referred to portion of the FSM National Development Plan 1985-89 is in compliance with the requirements of FSM Congree Public Law No. 3-88, as are the requirements stated that:

Section 3 (1) Sets forth in detail the project for which the funds shall be used and the amount needed.

- (2) Due to the fact that this is the first year of this development plan, this requirement is duly noted and will be complied with in all future submissions.
- (3) POHNPEI STATE WILL APPROPRIATE THE REQUIRED FUNDS
- (4) This does not exceed \$250,000 for the current fiscal year.
- (5) These funds will not defray administrative costs of the proposed project.

1985 Oroluk Atoll Sea Turtle Conservation Project Proposal

I. <u>Principal Investigator</u>

State of Ponape Marine Resources Chief, in conjunction with FSM Chief of Marine Resources (Mike Gawel) and Peace Corps Volunteer Teresa L. Herring.

II. Abstract

Due to increasing human population pressure, development of previously uninhabited islands and increased hunting for turtles has resulted in a sea turtle population decline. Since the early 1960s residents of Oroluk Atoll have observed large numbers of Hawksbill and Green Sea Turtles utilizing Oroluk Island as a nesting ground. Recently, residents have reported a drastic decline in Green Turtle nesting and little to no Hawksbill turtle nesting. A conservation attempt by residents has existed since the early 1960s until present. These residents will be able to continue to utilize turtles for traditional subsistence use.

The sea turtle is a valuable ford resource. The meat provides on important source of nutrition to local subsistence people of the FSM. A decline in the sea turtle population will adversely effect the availability of this food resource.

III. Goals

- A. Establishing Oroluk Atoll as a sea turtle refuge provides an undeveloped area for sea turtle nesting.
- B. This will enable implementation of conservation and management techniques to encourage on increase in the sea turtle population.
- C. Data will be collected on distribution, migration, nesting population,

hatchling success rate and hatchling growth rate. Also, headstart efforts for hatchlings will be properly initiated and supervised.

D. As a refuge, the species protection laws can be more affectively controlled and enforced.

IV. Objectives

- A. Phase I (May- Sept. 1985 Nesting Season):
 - 1. Apply for permit and license to gather information on this threatened/endangered species.
 - 2. A Micronesion counterpart will be trained in implementing methods and techniques of data collection, protecting eggs, monitoring nests, determining hatchling success rate and head-starting hatchlings. Two-way transportation, housing and provisions will be provided for counterpart.
 - 3. Investigation and enforcement of species protection laws.

B. Phase II (May-Sept. 1986 Nesting Season):

- 1. Retraining of counterpart, if necessary. Two-way transportation, housing and provisions will be provided.
- 2. Continuation of data collection, egg and nest protection ard head-start programming.
- 3. Organize tagging program to determine migratory habits, preferred nesting grounds, reproductive rate and mortality rate.
 - a. review instluctional video on tagging procedures.
 - b. train counterpart(s)
 - c. purchase tags and tagging instruments

V. Participation of Other Persons cr Groups

The residents of Oroluk Atoll will be involved in assisting with conservation and management practices and observing that the laws are being enforced.

The trained counterpart(s) will benefit from conservational education, scientific research and learned skills.

George H Balazs, Wildlife Biologist for National Marine Fisheries Service Honolulu, Hawaii, will be an advisor to this project.

All information will be available to conservation organizations in other countries.

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VI.	BUDGET (revision)	
	The following is a formatifor funding, appropriate deadlines for the Opeluk Atol? See Survey Dorte tet	i.
	Froject:	ITEM TOTAL
41	PACHENT DI DI DI DI DI DI LI DI DI LI 251 19951 1997 1701	
	A. \$30/mo. Host Agency Allowance for Marchuse \$	60.00
	S. Transportation:	
	 PCV - May: 1 way thip to Onoluk 2. Counterpart - May: 1 way thip to Onoluk 3. PCV - June: Return thip from Onoluk (food allowance) 4. Counterpart - June: return thom Unclus (food allowance) 	10.00 10.00 50.00 100.00 50.00 100.00
	C. Provisions (food) for counterpart & PCV @\$6.00/day for 60 days	360.00
	D. Equipment:	
	2 flashlights Ø\$18.95 batteries (24) fence + 50 ft. @\$2.00/ft. wire cutters kerosene data notebook, holder, pencils insect repellent miscellaneous	37.90 13.80 100.00 20.00 10.00 15.00 15.00 20.00
-18	PANER SPIRE On Poer Del Bret June 130 19951	, ŧ
	A. \$30.00/mo. Host Agency Allowance for July/August	60.00
	B. Labor (counterpart) @\$1.25/hr. x 8 hr./day x 45 days PAYMEN FILL UNION DECOME JULY 30 11985 11 116223 00)	450.00
जैस	A. Labor (counterpart) @\$1.25/hr. x 8 hr./day x 23 days FAMENTALLY ON OF SPECIAL OUT OF STATE (\$180.00)	223.00
"北流	A. \$30.00/mo. Host Agency Allowance for Sept/Oct	60.00
	B. Labor (counterpart) @\$1.25/hr. x 8 hr./day x 12 days	120.00
	Total Direct Costs = ≉	1,904.70

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The main nesting grounds for Oroluk Atoll is the southeastern side of Oroluk Island. In the past, green and hawksbill turtles have been reported to nest there, but presently only green turtles have been observed nesting there. Several years ago, nesting also occurred on the small island located in the lagoon south of Keltie Pass, it is reported that turtles no longer nest there.

For more information on sea turtle nesting on Oroluk Atoll, please refer to the final report of the <u>1985 Sea Turtle</u> <u>Population Assessment of Oroluk Atoll</u> included in this manual.



Ngatik resident, Kemseky Enere, reported that in the past 2-3 yrs. sea turtles no longer nest on the atoll. Before this time, green and hawksbill nested, but he did not give a location.



Nukuoro resident, Welly Otoko, reported that the green and hawksbill turtles nest on the lagoon side of Oromange & Kapinivere Islands. He reports about 30 nests are laid during a season. Female turtles are killed after nesting. Eggs are eaten.

*Map not drawn to scale



Kapingamarangi resident, Solomon Lawson, reported that hawksbill turtles nest on the lagoon side of Rugureru Island. There is alarge bed of sea grass here. During the full moon when the turtles are eating sea grass, the people spear them. Now, there is a nesting population of about 10 turtles on Rugureru I.. No eggs are eaten.

On the lagoon side, southern end of Hare Island turtles once nested, but too many island residents caused the turtles to discontinue nesting.

Mr. Lawson was unsure if green turtles nest on the atoll.



Mokil resident, Keister Johnson, reported that "many" hawksbill and green sea turtles nest on the atoll. Nesting sites are (see arrows): western side of Mandohn Island, southeastern side of Kahlap Island and western side of Uhrak Island. Greens are eaten when caught. Hawksbills are used to make jewelry and preserved shells. Eggs are eaten.

A third species of turtle was observed swimming in ocean by Peace Corps Volunteer, Terry Moore, (possibly the olive ridley sea turtle). Mr. Moore also reported an island rumor of a dead leatherback sea turtle washed up on shore many years ago (exact date unknown).

PINGELAP ATOLL



Pingelap resident, Stonis Charley, reported that green and hawksbill turtles nest on the southeastern side of Pingelap Island (see arrow). Eggs are eaten.

Peace Corps Volunteer, Charles Sayon, has observed a population of turtles swimming around the southern tip and southeastern side of Pingelap Island during the months of April, May and November. He has seen pairs and groups of about 10 turtles swimming in a straight line in the ocean. The species of turtle is unknown.

KOSRAE STATE



I visited Kosrae State on July 15-22, 1985.

Turtles nest at the southern beach, east of Utwe village (see arrow); nesting species unknown. Turtles and eggs are eaten. One fisherman reported that he has seen 4 species of sea turtle in the waters of Kosrae: green, hawksbill, leatherback and an unknown 4th type (possibly olive ridley).

During my visit, I observed a 13inch hawksbill contained in a bucket with a broken front left flipper which occurred while trapped in a fisherman's net. Employees of Kosrae Marine Resources Dept. reported to have 2 large green turtles contained in a pond beside their building.

In R.E. Johannes's publication: <u>A Review of Information on the</u> <u>Subsistence Use of Green and Hawksbill Sea Turtles on Islands</u> <u>Under United States Jurisdiction in the Pacific Ocean</u>, he notes that "...Foko Pe Beach is the only regular nesting site today on Kosrae."

APPENDIX A

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TAGGING AND MEASURING ILLUSTRATIONS

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NATIONAL MARINE RISHERIES SERVICE HONOLULU LABORAJORY P. O. BOX 3830 HONOLULU, HAWAII 76812 If you have the assistance rivitle can be turned over to fascilitate tagging, 2543 l mont FIRST LARGE SCALE LARGE 1. A. C. C. 1 2 tags (Stown HORE) ON THE RIGHT ON THE LEFT, ONE

Figure 18. Method of tagging the trailing edge of foreflipper. Photo by G. H. Balazs















HAWKSBILL TURILL

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tor caragare long th

GREEN TURTLE

OLIVE RIDLEY TURTLE

LOGGERHEAD TURTLE





LEATHTABACK TURTLE 5

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Figure 9.



A Review of Lubristonee Uper structure Porther in the Control and for som Control vold anti-territorial Segulations Lucromizing a Substitutione offer of Green 1111. Sea Turtles in the Truct Torritory of the Lucitic Science.

APPENDIX B

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USA TURTLE LAWS

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A Review of Subsistence Uses of Sea Turtles in the Central and Western Pacific with Respect to Federal Regulations Authorizing a Subsistence Take of Green Sea Turtles in the Trust Territory of the Pacific Islands

> Jim Lecky Southwest Region National Marine Fisheries Service Terminal Island, California 90731

Gene Nitta Southwest Region National Marine Fisheries Service Honolulu, Hawaii 96812

Administrative Report SWR-85-February 1985

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A. WHO IS INCLUDED IN THE EXCEPTION

Only residents of the Trust Territory of the Pacific' Islands may take green sea turtles for subsistence purposes. The term "residents of the Trust Territory of the Pacific Islands" is not defined in the regulations or elsewhere. There is no requirement that the "resident" of the Trust Territory be a <u>native</u> or possess an identifiable relationship with a native group or culture, as in the Alaskan native situation. Thus the exemption would appear to apply to all residents of the geographical area of the Trust Territory, regardless of their cultural background. This broad definition of who is included in the exception is, however, restricted by language stating that residents can only take sea turtles "... if such taking is customary, traditional and necessary for the sustenance of such resident and his immediate family." This appears to be an effort to limit the exception to resident native groups without actually defining such groups.

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The exception also provides that a <u>green sea turtle may</u> be taken for personal consumption by the taker and his "immediate family." Although the term "immediate family" is not defined, a close definitional analogy can be found in the ANILCA Alaskan native exception and the MMPA version of the ANILCA subsistence exception at 16 U.S.C. § 1379(f). As defined therein, "<u>family</u>" <u>means "all persons related by blood, marriage or adoption, or</u> any person living within a household on a permanent basis."

B. PURPOSES FOR WHICH SEA TURTLES MAY BE TAKEN

Only a limited range of subsistence usage is permitted by the exemption at 50 C.F.R., § (227.72(f). Under that provision, a taking must be for the "personal consumption" of the taker and his immediate family and the taking must be necessary for the "sustenance of those individuals." Again, these terms were not defined in the regulations. It is apparent from the preamble to the proposed and final regulations, however, that NMFS and FWS considered "personal consumption" to mean consumption for nutritional purposes. See 40 Fed. Reg. 21982, 21984, and 43 Fed. Reg. 32800, 32806. There was no indication in these comments that NMFS and FWS contemplated an exception for native handicrafts, as in the statutory Alaskan native exception. However, it is arguable that some other subsistence uses may come within the limited definition provided in § 227.72(f). The preamble to the final regulations explicitly cited the traditional, cultural usage of sea turtles by Yap Islanders as one reason why a subsistence exception for the Trust Territory was allowed. 43 Fed. Reg. 32800, 32806. For this reason, it is conceivable that some traditional, non-food uses, such as use of the turtle for clothing, tools, or other implements, may be permissible. Such uses fit the § 227.72(f) criteria, as they are a form of personal consumption, they are traditional, cultural uses and they fit within the dictionary definition of the term "sustenance." Establishing that such uses are

"necessary" to the sustenance of the taker and his immediate family is the only apparent barrier to including such subsistence uses in the § 227.72(f) definition.

C. PERMISSIBLE USE3

In addition to limiting the purposes for which a green sea turtle may be taken, the exception imposes restrictions upon the use of a turtle once it is taken. Even if the turtle was legitimately taken for personal consumption, the taker cannot sell the turtle or its parts and cannot transfer the turtle or its parts to a non-resident. This language does not preclude a transfer of subsistence taken turtles among residents, however, so some type of barter system among residents may be permissible.

D. RESTRICTIONS UPON SUBSISTENCE TAKING

Three additional restrictions upon subsistence taking should be noted. The exception does not permit residents of the Trust Territory to take any species of sea turtle other than the green sea turtle (Chelonia mydas). This effectively bans the taking of the hawksbill turtle, which has been identified as another species of sea turtle that has been subject to a traditional harvest by native groups in the Pacific region. NMFS Memorandum, "A Review of Information on the Subsistence Use of Green and Hawksbill Sea Turtles on Islands Under U.S. Jurisdiction in the Pacific Ocean," R. S. Johannes, January, 1984. The hawksbill turtle is listed as "endangered" under the ESA, and thus a subsistence exception is precluded by §9(a) of the Act. 16 U.S.C. § 1538(a).

The exception also attempts to protect the stocks of the green sea turtle by permitting them to be taken only while in the water ("...waters seaward of mean low tide"). This restriction was designed to protect nesting beaches and the female turtles and eggs located upon these beaches.

Finally, NMFS and FWS have an obligation to obtain data on the extent of subsistence harvesting and the effect of such harvesting upon the green sea turtle population. The agencies are to base future decisions about the level of subsistence taking upon this data. 43 Fed. Reg. 32800, at 32806. This provision is similar to that in the ESA statutory exception for Alaskan natives, which permits the Secretary to restrict subsistence taking if such taking is materially and negatively affecting the subject species. 16 U.S.C. § 1539(e)(4).

VII.

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COMPARISON OF ESA STATUTORY AND REGULATORY SUBSISTENCE EXCEPTIONS

It is apparent that the ESA regulatory subsistence exception for the taking of green sea turtles is different in many respects

any agent or employee of the National Marine Fisheries Service, the Fish and Wildlife Service, the U.S. Coast Guard, or any other Federal land or water management agency, or any agent or employee of a State agency responsible for fish and wildlife who is designated by his or her agency for such purposes, may, when acting in the course of his or her official duties, take such specimens without a permit if such taking is necessary to aid a sick, injured, or stranded specimen or dispose of a dead specimen or salvage a dead specimen which may be useful for scientific study. Wherever possible, live specimens shall be returned to their aquatic environment as soon as possible. Every action shall be reported in writing to the Assistant Administrator within 30 days, and reports of further occurrence shall be made as deemed appropriate by the Assistant Administrator until the specimen is either returned to its environment or disposed of. Reports shall be mailed by registered or certified mail, return receipt requested, to the Assistant Administrator for Fisheries, National Marine Fisheries Service, Washington, D.C. 20235, and shall contain the following information:

(1) Name and position of the official or employee involved;

(2) Description of the specimen(s) involved;

(3) Date and location of disposal:

(4) Circumstances requiring the action:

(5) Method of disposal;

(6) Disposition of the specimen(s), including, where the specimen(s) has

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Titla 50-Wildlife and Fisheries

- CHAPTER I-U.S. FISH AND WILDLIFE SERVICE, DEPARTMENT OF THE IN-TERIOR
- PART 17—ENDÁNGERED AND THREATENED WILDLIFE AND PLANYS
- Listing and Protocting Loggarhoad Sea Turtios as "Throatened Spoclos" and Populations of Green and Olivo Ridloy Sea Turtios as Throatened Species or "Endangored Species".

CROSS REFERENCE: For a regulation on the above entitled matter, issued jointly by the Department of Commerce/National Oceanic and Atmospheric Administration/National Marine Fisheries Service and the Department of the Interior/Fish and Wildlife Service, see FR Doc. 78-21047 in the rules and regulations section of this issue of the FEDERAL REGISTER. been retained in captivity, a description of the place and means of confinement, and the measures taken for its maintenance and care; and

(7) Such other information as the Assistant Administrator may require.

(d) Exception for research or conservation. Any employee or agent of the National Marine Fisheries Service, the Fish and Wildlife Service, or a State fish and wildlife agency operating a conservation program pursuant to the terms of a Cooperative Agreement with the National Marine Fisheries Service or the Fish and Wildlife Service in accordance with Section 6(c) of the Act, designated by his or her agency for such purposes, may, when acting in the course of his or her official duties, take any threatened specles to carry out scientific research or conservation programs. All such takings shall be reported within 30 days of the taking to the Assistant Administrator who may request additional reports of the taking and research at his discretion.

(e) Exception for incidental taking— (1) General. Except as provided in paragraphs (e)(2) and (e)(3) of this section, the incidental taking of any member of any species listed in § 227.4 during fishing or scientific research activities not directed toward such members of such species is allowed under the following conditions:

(i) any specimen so taken must be handled with due care to prevent injury to live specimens, and must be returned to the water immediately whether it is dead or alive unless it is a sea turtle which is alive and unconscious, in which case before returning it to the water, resuscitation must be attempted by turning the turtle on its back and pumping its plastron by hand or foot; and

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(ii) any specimen so taken must not be consumed, sold, landed, offloaded, transshipped, or kept below deck.

(2) Restricted Fishing Areas. [Reserved]

(3) Gear. [Reserved]

(f) Subsistence. The prohibition in § 227.71(b) shall not apply with respect to the taking of any member of the species of green sca turtle (Chelonia mydas) in waters seaward of mean low tide for personal consumption by residents of the Trust Territory of the Pacific Islands if such taking is customary, traditional and necessary for the sustenance of such resident and his immediate family. Sca turtles so taken cannot be transferred to non-residents or sold.

Norz.—The National Marine Fisherics Service and the U.S. Fish and Wildlife Service have determined that this document does not contain a major action requiring preparation of an economic impact statement under Executive Order 11949 and OMB Circular A-107.

Dated: July 25, 1978.

TERRY L. LEITZELL, Assistant Administrator for Fisheries.

Dated: July 25, 1978.

LYNN A. GREENWALT, Director, U.S. Fish and Wildlife Service.

[FR Doc, 78-21047 Filed 7-27-78; 8:45 am]

FEDERAL REGISTER, VOL 43, NO. 145-FRIDAY, JULY 28, 1978

MIKE GAWEL Marino Resources Federated States of Micronesia Kalonia, Ponape 86941

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

50 CFR Part 227

Review of Regulations Concerning the Taking of Sea Turtles for Subsistence Purposes

AGENCY: National Marine Fisherics Service (NMFS), NOAA, Commerce. ACTION: Notice of final determination and availability of review document.

SUMMARY: On April 20, 1983 [48 FR 10925), the NMFS announced its intention to review Special Rule 50 CFR Part 227 Subpart D to determine whether the subsistence regulations for the Trust Territory of the Pacific Islands (TTPI) should be modified and whether the taking of sea tuitles for subsistence purposes should be allowed in other areas of the central and western Pacific. During that review, the NMFS considered public comments on the need for subsistence exceptions in the central and western Pacific, the criteria that must be satisfied before a subsistence take could be authorized, information 3 concerning the dependence of cultural groups in the central and western Pacific on the taking of sea turtles, and the status of sea turile stocks. The NMFS determined that there are no native cultures outside of the TTPI that are dependent on the taking of sea turtles. and that there is no justification for an thurizing a subsistence take **Esewhere in the Pacific. The NMFS** determined that during the rule-making

process resulting in the listing and the subsistence exception, the information provided by the TTPI for specific areas in the TTPI was inappropriately assigned to the whole of the TTPI. This created an inequitable situation in the Mariana Archipelago with the Commonwealth of the Northern Mariana Islands (CNMI) being allowed a subsistence take and Guam not. The NMFS determined that there is no justification for a subsistence exception in the Mariana Archipelago and proposes to resolve the current inequity. by allowing the subsistence exception to dissolve with the pending dissolution of the Trust under which the TTPI is administered.

The purpose of this notice is to announce the NMFS's determination to retain the existing sea turtle regulations without modification and to announce the availability of the document on which that determination is based. ADDRESSES: For copies of the review document (Titled: A Review of Subsistence Uses of Sea Turtles in the Central and Western Pacific with **Respect to Federal Regulations** Authorizing a Subsistence Take of Green Sea Turtles in the Trust Territory of the Pacific Islands) contact: James H. Locky, Protected Species Program **Coordinator, National Marine Fisheries** Service/Southwest Region, 300 S. Ferry Street, Room 2001, Terminal Island, CA 90731 (telephone (213) 548-2518). FOR FURTHER INFORMATION CONTACT: ames H. Lecky, (213) 548-2518. SUPPLEMENTARY INFORMATION:

Background

Currently sea turtle regulations [50 27 CFR 227.72(f)) authorize a subsistence take of green sea turtles in the TTPI. In late 1931, the State of Hawaii requested the NMFS to consider authorizing a take of green sea turtles for home consumption, Also, an individual Hawaiian, speaking on behalf of native Hawaiians, has requested the NMFS to recognize native Hawaiians' aboriginal rights to take turtles. In 1982, Guam voiced its opinion that NMFS's regulations were inconsistent and inequitable in the Mariana Archipelago. Guarn and the CNMI comprise the Mariana Archipelago. The CNMI is allowed to participate in the subsistence exception because they are a part of the TTPI. Guam is excluded from the subsistence exception because it is not part of the TTPI and during the listing process it did not provide sufficient information to substantiate the need for a subsistence exception.

In response to these requests, the NMFS initiated a review of its regulations. During the review, the NMFS examined the criteria that-must [be satisfied in order to authorize a subsistence take, the traditional uses of sea turtles in the central and western Pacific, and the status of the green sea furtle stocks. The NMFS determined that a subsistence authorization could be allowed only if an existing culture was dependent on the taking of sea turtles for its continued existence and that the turtle stock involved would not be jeopardized by the subsistence take.

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As part of this review, the NMFS conducted public hearings in Guam, the CNMI. American Samoa, and the Huwaiian Islands to collect comments and information on the need for subsistence exceptions in those areas. The NMFS issued a contract for the review of cultural dependence on sea turiles throughout the central and western Pacific and requested the NOAA Office of General Counsel Southwest to review the various subsistence exceptions and provide guidance on what criteria must be considered in authorizing a subsistence take. Concurrent with the review on subsistence taking, the NMFS conducted a review of the status of the listed sea turtle stocks. The results of the slatus review of green sea turtle stocks were incorporated in the review of the subsistence issue.

The review of cultural practices outside the TTPI revealed that no extant native cultures are dependent on the taking of sca turtles. The requests from the State of Hawail and the Territory of Guam were not made on behalf of any particular cultural group, so they could not be considered under a subsistence exception at this time.

A home use exception that is available to everyone does not distinguish a native subsistence take from a recreational take and is not consistent with the Endangered Species Act. Home use and commercial use can be authorized only after green sea turtle stocks have recovered and are delisted.

Guam's complaint that the existing regulation for a subsistence exception is inequitable in the Mariana Archipelago is justified. However, the information considered in this review does not substantiate the need for subsistence take in Guam. The administrative record for the listing of sea turtles shows that the CNMI received its subsistence exception because of its political status as part of the TTPI and not because of a need or cultural dependence. This inequity will be resolved when the TTPI dissolves. At the time the Covenant of the CNMI becomes effective, the CNMI

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will be subjected to the same regulations as Guam. Therefore, the NMFS plans to retain the existing subsistence exception without modification and to establish a joint Pacific sea turtle recovery team with the U.S. Fish and Wildhife Service and the State and Territorial governments. The recovery team will be assigned the task of developing criteria for determining when sea turtle populations within U.S. jurisdiction in the central and western Pacific can be delisted and recommending management measures to promote the recovery of the stocks.

List of Subjects in 50 CFR Part 227

Endangered and threatened wildlife, Exports, Fish, Fisheries, Imports.

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Dated: December 20, 1984. William G. Gordon,

Assistant Administrator for Fisheries, National Marine Fisheries Service. [FR Doc. 85–18 Filed 1–2–85; 8:45 am]

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APPENDIX C

FSM TURTLE LAWS

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1966 § 780; Code 1970 45 TTC 1; PL 4C-35 § 1; Code 1980 45 TTC 1(1))

Editor's Note: Subsections of this section have been rearranged.

§ 102. Exceptions to prohibition – Permit. – The provisions of section 101 of this chapter shall not apply where the district administrator:

(1) has granted written permission to use the means prohibited in section 101 of this chapter;

(2) has determined that the

(a) purpose of obtaining the fish or other marine life is to avoid the waste or loss of such fish or marine life; and (b) consumption or sole of fish or other marine life

(b) consumption or sale of fish or other marine life caught by any means the use of which is prohibited in section 101 of this chapter is not harmful or hazardous to health and human life. (Code 1966 § 780; Code 1970 45 TTC 1; PL 4C-35 § 2; Code 1980 45 TTC'1(2))

§ 103. Exceptions to prohibition – Local materials. – Nothing in sections 101 or 102 of this chapter shall be construed to prevent any person from catching any fish or other marine life by the use of local roots, nuts, or plants which have the effect of stupefying but which do not kill fish or other marine life. (Code 1966 § 780; Code 1970 45 TTC 1; PL 4C-35 § 3; Code 1980 45 TTC 1(3))

§ 104. Use of explosives, poisons, chemicals, etc. – Penalty. – Any person who violates any of the provisions of section 101 of this chapter shall, upon conviction thereof; be fined not less than \$100 or more than \$2,000, or imprisoned for not less than six months, or more than two years, or both. (Code 1966 § 780; Code 1970 45 TTC 1; PL 4C-35 § 4; Code 1980 45 TTC 1(4))

§ 105. Limitations on taking of turtles.

(1) No hawksbill turtles or sea turtles shall be taken or intentionally killed while on shore, nor shall their eggs be taken.

(2) No hawksbill turtle shall be taken or killed except whose shell is at least twenty-seven inches when measured over the top of the carapace shell lengthwise; no green turtle shall be taken or killed except whose shell is at least thirty-four inches when measured over the top of the carapace shell lengthwise.

(3) No sea turtle of any size shall be taken or killed from the first day of J<u>une to the thirty-first day of August inclusive</u>, nor from the first day of December to the thirty-first day of January inclusive.

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(4) Notwithstanding any provisions of this section to the contrary, taking of sea turtles and their eggs shall be allowed for scientific purposes when specifically authorized by the High Commissioner. (Code 1966 § 781; Code 1970 45 TTC 2; PL 4C-57 §§ 1 - 3; Code 1980 45 TTC 2)

§ 106. Control of sponges. – No sponges artificially planted or cultivated shall be taken or molested, except by permission of the High Commissioner. (Code 1966 § 782; Code 1970 45 TTC 3; Code 1980 45 TTC 3)

§ 107. Control of pinctada margaritifera (black-lip mother-of-pearl oyster shell). – No pinctada margaritifera, commonly known as black-lip mother-of-pearl oyster shell, shall be taken from the first day of August to the thirty-first day of December inclusive; provided, that no such shell may be taken at any time which is less than six inches in minimum diameter, measured along the longest dimension across the outside of the shell; and provided further, that such shells, of any size, may be taken at any time for scientific purposes when specifically authorized by the High Commissioner. (Code 1966 § 783; Code 1970 45 TTC 4; PL 4C-57 § 4; Code 1980 45 TTC 4; PL 1C-19 § 1)

§ 108. Trochus – Definition. – For the purpose of this chapter, the term trochus shall be considered trochus niloticus. The names of trochus maximus, tectus niloticus, and tectus maximus shall be considered names synonymous with trochus niloticus. (Code 1966 § 770 (part); Code 1970 45 TTC 51(2); Code 1980 45 TTC 51(2))

§ 109. Harvesting restricted. — The harvesting of or in any way intentionally interfering with the growth of trochus in the waters of the Trust Territory is prohibited except as provided in this chapter. (Code 1966 § 770 (part); Code 1970 45 TTC 51(1); Code 1980 45 TTC 51(1))

§ 110. Trochus – Designation of season.

(1) Each district administrator may, with the advice and consent of the High Commissioner, designate and vary from year to year, an open season or seasons during May through September, inclusive, for such period of time as deemed advisable for the harvesting of trochus in his district, and may designate certain reefs or sections thereof that shall be closed for the harvesting of trochus, notwithstanding the fact that the season is open. The open season may vary in different areas or islands within each district.

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(2) Public notice shall be given in each district of the dates designated for the harvesting of trochus, and the reefs that have been declared closed, if any, by posting in writing in the predominant native language of that local-government area and filing a copy of each designation with the local clerk of courts. (Code 1966 § 771(a): Code 1970 45 TTC 52(1): Code 1980 45 TTC 52(1))

§ 111. Trochus harvesting by citizens only. -- During an open season, any citizen of the Trust Territory may dive for and harvest trochus in the district to which the season applies, within those areas in which he has the right to fish under established local custom. (Code 1966 § 771(b) (part); Code 1970 45 TTC 52 (2) (part); PL 5-65 § 1 (part); Code 1980 45 TTC 52(2) (part))

§ 112. Trochus harvesting - Size limits. - No trochus shall be taken whose shell is less than three inches in diameter at the base. (Code 1966 § 771(b) (part); Code 1970 45 TTC 52(2) (part); PL 5-65 § 1 (part); Code 1980 45 TTC 52(2) (part))

§ 113. Trochus harvesting – Omission of season.

(1) Each district administrator may, if it is deemed expedient, and with the advice and consent of the High Commissioner, prohibit the harvesting of trochus during any given calendar year or years.

(2) Public notice shall be given of the prohibition in the same manner as the aforesaid notice designating the dates for the harvesting of trochus in section 110 of this chapter. (Code 1966 § 771(c); Code 1970 45 TTC 52(3); Code 1980 45 TTC 52(3))

§ 114. Removal and replanting of trochus beds.

(1) If a district administrator determines that underwater operations which will interfere with an existing trochus bed are in the public interest, he may issue a written permit for the removal and replanting of such bed at the expense of the person or persons desiring to conduct the underwater operations.

(2) Each district administrator may at any time authorize the removal and transportation of trochus for the purpose of introduction to other reefs, islands, or atolls. (Code 1966 § 773; Code 1970 45 TTC 53; Code 1980 45 TTC 53)

§ 115. General penalties. – A person violating any of the provisions of this title for which a different penalty is not otherwise provided shall upon conviction thereof be imprisoned for a period not exceeding six months, or fined not more than \$100, or both. (Code 1966 §§ 774, 784; Code 1970 45 TTC 5; PI, 4C-35 § 6; Code 1980 45 TTC 5)

Adopted Regulations Title 45 Fish, Shellfish and Game Chapter 5 **Endangered Species**

Part 1

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1.1 The endangered species of the Trust Territory and their ranges in the Trust Territory are as listed below:

Common Name	Scientific Name	Range in Trust Territory*
Mammals		
Dugong (Sea Cow)	Dugong dugon	Palau
Blue Whale	Balaenoptera musculus	Micronesia
· Sperm Whale	Physeter catadon	Micronesia
Birds		
Marianas Duck	Anas ousteleti	Marianas
Palau Grey Duck	Anas superciliosa pelewensis	Palau
Micronesian Megapode	Megapodius laperouse	Palau and Marianas
Palau Nicobar Pigeon	Caloenas nicobarica pelewensis	Palau
Palau Ground-Dove	Gallicolumba canifrons	Palau
Truk Micronesian Pigeon	Ducula oceanica ieraokai	Truk
Ratak Micronesian Pigeon	Ducula oceanica ratakensis	Wolje and Arno (Marshall Is.)
Palau Owl	Pyrroglaux podargina	Palau .
Nightingale Reed- Warbler	Acrocephalus luscinia	Marianas, Truk, Ponape, Kusaie
Tinian Monarch	Monarch takatsukasae	Tinian (Marianas)

*Ranges listed are geographic - not political subdivisions

Palau Fantail	Rhipidura lepida	Palau
Truk Greater White-eye	Rukia ruki	Truk
Ponape Greater White-eye	Rukia longirostra (= R. sanfordi)	Ponape
Palau Blue-Faced Parrotfinch	Erythrura trichroa pelewensis	Palau

Ponape Mountain Aplonis pelzelni Ponape Starling Palau White-Artamus leucorhynchus Palau breasted Wood swallow pelewensis Marianas Crow Corvus kubaryi Rota (Marlan Reptüles Hawksbill Turtle Eretmochelys imbricata Micronesia Leatherback Turtle Dermochelys coriacea Micronesia Plants Rock Island Palm Gulubia palauensis Palau Truk Palm Clinostigma carolinensis Truk Palau Palm Ptychosperm palauensis Palau

Truk Poison Tree

Marianas Serianthes

Serianthese nelsonii ** ******** *****

Semeacarpus kraemeri

Truk

Rota (Marianas

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otherwise provided shall upon conviction thereof be imprisoned for a period not exceeding six months, or fined not more than \$100, or both. (Code 1966 §§ 774, 784; Code 1970 45 TTC 5; PL 4C-35 § 6; Code 1980 45 TTC 5)

CHAPTER 2

(RESERVED)

CHAPTER 3

Endangered Species Act

Sections:

§ 301. Short title.

§ 302. Findings.

§ 303. Policy.

§ 304. Administration of chapter.

§ 305. Definitions.

§ 306. Prohibited acts.

§ 307. Exception-Scientific uses.

§ 308. Exception–Public nuisances; Public safety.

§ 309. Exception—Controlled farming.

§ 310. Exception-Subsistence uses.

§ 311. Exception-Innocent possession.

§ 312. Exception-Prior possession.

§ 313. Regulations. March 1999

§ 314. Importation of endangered species.

§ 315. Importation of exotic plants and animals.

§ 316. Confiscation of plants, equipment, etc., for violations.

§ 317. Penalties for violation of chapter.

§ 301. Short title. – This chapter is known and may be cited as the "Trust Territory Endangered Species Act of 1975." (PL 6-55 § 1; Code 1980 45 TTC 101)

§ 302. Findings. – The Congress of Micronesia has determined that certain species of plants and animals are threatened with or in danger of becoming extinct in the Trust Territory. (PL 6-55 § 2; Code 1980 45 TTC 102)

§ 303. Policy. -i The indigenous plants and animals of the Trust Territory are of esthetic, ecological, historical,

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recreational, scientific, and economic value and it is the policy of the Government of the Trust Territory to foster the wellbeing of these plants and animals by whatever means necessary to prevent the extinction of any species or subspecies from our islands or the water surrounding them. (PL 6-55 § 3; Code 1980 45 TTC 103)

§ 304. Administration of chapter. — The provisions of the chapter will be administered by the director of Resources and Development through the office of the chief conservationist within his department. This administration of the chapter will include the authority to set up conservation programs aimed at conserving endangered and threatened species, including research programs to adequately define which species are in fact endangered or threatened, and including, when necessary, the acquisition of land or aquatic habitat or interest therein for the conservation of resident endangered or threatened species. (PL 6-55 § 4; Code 1980 45 TTC 104)

§ 305. Definitions. – As used in this chapter, unless the context otherwise requires:

(1) "Animal" means any species of organism in the animal kingdom including, but not restricted to, mammals, birds, reptiles, amphibians, fish, clams, crustaceans, and corals.

(2) "Commercial activity" means all activities of industry and trade including, but not limited to, buying or selling of commodities, and activities conducted for the purpose of facilitating such buying or selling.

(3) "Director," when used alone, means the director of Resources and Development of the Trust Territory.

(4) "Endangered species" means any species which is in danger of extinction throughout all or a significant portion of its range.

(5) "*Export*" means to remove from any land or water area under the jurisdiction of the Trust Territory to any other place in the world.

(6) "Import" means to land on, bring into, or attempt to land on, bring into, or introduce into any place subject to the jurisdiction of the Trust Territory.

(7) "Or parts thereof" means, in the case of animals and fish, hide, hair, bone, skeleton, teeth, feathers, skin, scales, tissues, or internal organs. In the case of plants, the term means any root, leaf, stem, trunk, bark, fiber, seed, fruit, flower, tissue, or extract.

(8) "Person" means any individual, corporation, partnership, trust, association, or any other private entity, or any

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officer, employee, agent, department, or instrumentality of the Government of the Trust Territory, or of any Trust Territory district or municipality.

(9) "*Plant*" means any species of organism in the plant kingdom including, but not restricted to, trees, shrubs, flowers, grasses, algae, and fungi.

(10) "*Possession*" means the personal holding of any endangered or threatened species of plant or animal or parts thereof by any person, or possession of that species on his or her property, land, vehicle, home, place of business, or place of work.

(11) "Species" means any species or subspecies of scientifically described plant or animal.

(12) "Take" means to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such activity.

(13) "*Threatened species*" means any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.

(14) "Trust Territory" means the Trust Territory of the Pacific Islands. (PL 6-55 § 5; Code 1980 45 TTC 105)

Editor's Note: Subsections rearranged in alphabetical order.

§ 306. Prohibited acts. – It is prohibited for any person to take, engage in commercial activity with, hold possession of, or export any threatened or endangered species of plant or animal or parts thereof, so listed in this chapter or in any regulation issued in accordance with this chapter, except in accordance with the exceptions listed in sections 307 through 312 of this chapter. (PL 6-55 § 6; Code 1980 45 TTC 106)

§ 307. Exception – Scientific uses. – This chapter shall not apply to the taking, possession of, or export of species of endangered or threatened plants and animals or parts thereof for scientifc purposes, providing the person or persons involved apply for and are issued a permit for such activity by the director of Resources and Development in accordance with regulations governing the issuance of such permits. (PL 6-55 § 7(1); Code 1980 45 TTC 107(1))

§ 308. Exception – Public nuisances; Public safety. – This chapter shall not apply to any species of endangered or threatened plant or animal if that plant or animal becomes a public nuisance or public safety factor, providing that any remedial action be taken only by the Trust Territory

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Government and in accordance with regulations issued in accordance with this chapter for this purpose. (PL 6-55 § 7(2); Code 1980 45 TTC 107(2))

§ 309. Exception – Controlled farming. – This chapter shall not apply to those species of endangered or threatened plants and animals or parts thereof which have been taken under authority of section 307 of this chapter and raised successfully in commercial quantities under controlled conditions of aquaculture, mariculture, game farming, agriculture, or horticulture, providing that the individuals or quantity lots of these species or parts thereof are identified and identifiable as having been raised under these controlled conditions, such identification to be in accordance with regulations issued under this chapter. (PL 6-55 § 7(3); Code 1980 45 TTC 107(3))

§ 310. Exception – Subsistence uses. – This chapter shall not apply in those cases where the director has determined that the taking from certain islands of certain species of endangered or threatened plants or animals for subsistence food or for old traditional uses does not further endanger the species involved; provided, that the species or parts thereof involved are not subjected to commercial activity nor exported; and further provided, that this exception will only apply to the bona fide indigenous inhabitants of the islands excepted by the director. (PL 6-55 § 7(4); Code 1980 45 TTC 107(4))

§ 311. Exception – Innocent possession. – This chapter shall not apply to any person in innocent possession of any species of endangered or threatened plant or animal or parts thereof, except that such plants or animals or parts thereof will be confiscated by the Trust Territory and disposed of in accordance with regulations issued under this chapter. (PL 6-55 § 7(5); Code 1980 45 TTC 107(5))

§ 312. Exception – Prior possession. – This chapter will not apply to any nonliving species of endangered or threatened plant or animal or parts thereof, if a person was in possession of same prior to this chapter becoming law; and provided, that the person gives adequate evidence of such prior possession in accordance with criteria contained in regulations issued in accordance with this chapter. (PL 6-55 § 7(6); Code 1980 45 TTC 107(6))

§ 313. Regulations. – The director of Resources and Development shall issue regulations, subject to the approval of

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the High Commissioner, applying to this chapter and including a listing of the species of endangered and threatened plants and animals of the Trust Territory. These regulations shall have the force and effect of law. (PL 6-55 § 8; Code 1980 45 TTC 108)

§ 314. Importation of endangered species. - In anticipation of international cooperation and reciprocation, it is prohibited to import into the Trust Territory any species of endangered or threatened plant or animal or parts thereof which is listed by the convention on international trade in endangered species of wild fauna and flora. This list may be a part of the regulations applying to this chapter. (PL 6-55 § 9; Code 1980 45 TTC 109)

§ 315. Importation of exotic plants and animals. – Since exotic plants and animals not already established in the Trust Territory can cause ecological upsets, compete with, prey upon, and introduce serious or devastating diseases which could further endanger our indigenous plants and animals or drive them to extinction, it is prohibited to import such exotic plants and animals or parts thereof into the Trust Territory except under permit by the director as defined in the regulations authorized by this chapter, except that beneficial insects and biological control microorganisms may be imported in accordance with the Trust Territory plant and animal quarantine laws. (PL 6-55 § 10; Code 1980 45 TTC 110)

§ 316. Confiscation of plants, equipment, etc., for violations. – Any endangered species of plant or animal or parts thereof, held by any person in contravention of any of the other sections of this chapter, may be confiscated by the Trust Territory Government and disposed of in accordance with the regulations applying to this chapter, and further, any gun, weapon, spear, knife, trap, net, fishing gear, boat, engine, or vehicle used for the purpose of violating any of the provisions or regulations of this chapter may be confiscated and disposed of by the Trust Territory Government in accordance with the regulations applying to this chapter. (PL 6-55 § 11; Code 1980 45 TTC 111)

§ 317. Penalties for violation of chapter. – Any person found guilty of violating any of the provisions of this chapter shall be fined not more than \$10,000, or imprisoned for not more than one year, or both. (PL 6-55 § 12; Code 1980 45 TTC 112)

APPENDIX D

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PUBLICATIONS & REFERENCES

GEORGE H. BALAZS ZOOLOGIST MARINE MAMMALS AND ENDANGERED SPECIES PROGRAM



MEMBER, IUCN MARINE TURTLE SPECIALIST GROUP

Publications

NATIONAL MARINE FISHERIES SERVICE P.O. BOX 3830 + 2570 DOLE ST. HONOLULU, HAWAII 96812

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