

MARINE TURTLES/land turtles-  
newspaper articles: 1973, 1972

1972-1979

G.H. BALAZS FILES

PART 2 of 2

MARINE TURTLES/land turtles- 1972-1973  
exerpts, advertisements, news, etc.

MARINE TURTLES/land turtles- 1974  
exerpts, advertisements, news, etc.

MARINE TURTLES/land turtles-  
newspaper articles: 1974

MARINE TURTLES/land turtles-  
newspaper articles: 1977

MARINE TURTLES/land turtles- 1979

MARINE TURTLES- no dates  
articles, items, news, advertisement

**NAVARRO BROS.**

213 SO. EL PASO STREET  
EL PASO, TEXAS 79901

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Mr. George Balzs  
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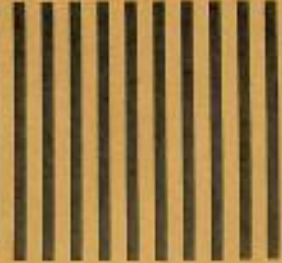
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# Navarro Brothers

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It's simple to order shoes by mail:

On ordering shoes state size and width of shoe that you are wearing comfortably. If you do not know your shoe size, send us all the numbers shown inside your shoes. If the numbers are not legible, ask your local shoeman. If you have bought shoes from us before we have a record of your size in our files. A tracing of your right foot or even a tracing of your shoe will also help us to give you a perfect fitting shoe.

(Do not write in this space)

<input type="checkbox"/>	FLYING JODPHUR Style No. 5006	\$27.95 ppd.
<input type="checkbox"/>	Black <input type="checkbox"/> Sand Suede <input type="checkbox"/>	
<input type="checkbox"/>	Brown <input type="checkbox"/> Tan <input type="checkbox"/>	
<input type="checkbox"/>	Cordovan Brown <input type="checkbox"/> Size and Width	
<input type="checkbox"/>	SKY-HI JODPHUR No. 15	\$27.95 ppd.
<input type="checkbox"/>	Black <input type="checkbox"/> Brown <input type="checkbox"/> Size and Width	
<input type="checkbox"/>	GENTLEMEN'S BOOTEE Style No. 611	\$26.95 ppd.
<input type="checkbox"/>	Blk Kid <input type="checkbox"/> Palomino Kid <input type="checkbox"/> Size and Width	
<input type="checkbox"/>	BOTIN VAQUERO Style 7054	\$25.95 ppd.
<input type="checkbox"/>	Black <input type="checkbox"/> Brown <input type="checkbox"/> Size and Width	
<input type="checkbox"/>	BOTIN CHARRO No. 607 (Specify heel 1 1/4" or Flat)	
<input type="checkbox"/>	Black <input type="checkbox"/> Brown <input type="checkbox"/> \$25.95 ppd.	
<input type="checkbox"/>	Size and Width	
<input type="checkbox"/>	No. 9904 THE ROUSTABOUT 14" BOOT	
<input type="checkbox"/>	Spanish Brandy Brown <input type="checkbox"/> \$32.50 ppd.	
<input type="checkbox"/>	Size and Width	
<input type="checkbox"/>	Alligator-Calf Slip-On #3456	\$32.50 Ppd.
<input type="checkbox"/>	Black <input type="checkbox"/> Brown <input type="checkbox"/> Size and Width	
<input type="checkbox"/>	GENUINE ALLIGATOR Slip-On	\$95.00 ppd.
<input type="checkbox"/>	Black X668 <input type="checkbox"/> Brown X667 <input type="checkbox"/> Size and Width	
<input type="checkbox"/>	GENUINE ALLIGATOR SLIP-ON SIDE BUCKLE	
<input type="checkbox"/>	No. 850 \$88.00 ppd.	
<input type="checkbox"/>	Black <input type="checkbox"/> Brown <input type="checkbox"/> Blue <input type="checkbox"/> Burgandy <input type="checkbox"/> Beige <input type="checkbox"/> Size and Width	
<input type="checkbox"/>	TRAVEL EASE SLIP-ON Style No. 612	
<input type="checkbox"/>	Rich Brown suede only <input type="checkbox"/> \$24.00 ppd.	
<input type="checkbox"/>	Size and Width	
<input type="checkbox"/>	THE PLAINSMAN COWBOY BOOT No. 305	\$35.00 ppd.
<input type="checkbox"/>	Piñon <input type="checkbox"/> Black <input type="checkbox"/> Brown <input type="checkbox"/> Size and Width	

<input type="checkbox"/>	LADIES' LEATHER TOOLED HAND-BAGS	
<input type="checkbox"/>	No. 330 12 1/2" x 11" x 5 1/2"	
<input type="checkbox"/>	Brown <input type="checkbox"/> Tan <input type="checkbox"/>	
<input type="checkbox"/>	No. 702 15" x 9" x 5 1/2"	\$24.95 ppd.
<input type="checkbox"/>	THE SILVER KING COWBOY BOOT No. 2040	
<input type="checkbox"/>	<input type="checkbox"/> With Mex. silver \$49.50 ppd.	
<input type="checkbox"/>	<input type="checkbox"/> Without silver \$44.50 ppd.	
<input type="checkbox"/>	Black <input type="checkbox"/> Brown <input type="checkbox"/> Size and Width	
<input type="checkbox"/>	Plain-Toe Baby Shark Cowboy Boot No. 747	\$57.50 Ppd.
<input type="checkbox"/>	Black <input type="checkbox"/> Brown <input type="checkbox"/> Size and Width	
<input type="checkbox"/>	SHARK BUCKLE BOOT No. 117	\$42.50 ppd.
<input type="checkbox"/>	Black <input type="checkbox"/> Brown <input type="checkbox"/> Size and Width	
<input type="checkbox"/>	SHARK CLASSIC SLIP-ON No.1174	\$39.50 ppd.
<input type="checkbox"/>	Black <input type="checkbox"/> Brown <input type="checkbox"/> Size and Width	
<input type="checkbox"/>	SHARK MONK-STRAP with	\$39.50 ppd.
<input type="checkbox"/>	BUCKLE No. 1145	
<input type="checkbox"/>	Black <input type="checkbox"/> Brown <input type="checkbox"/> Size and Width	
<input type="checkbox"/>	SHARK LACE OXFORD No.1006	\$39.50 ppd.
<input type="checkbox"/>	Black <input type="checkbox"/> Brown <input type="checkbox"/> Size and Width	
<input type="checkbox"/>	SHARKSKIN COWBOY BOOT No. 706	\$52.50 ppd.
<input type="checkbox"/>	Black <input type="checkbox"/> Brown <input type="checkbox"/> Size and Width	
<input type="checkbox"/>	GEN. SEA TURTLE SLIP-ON No. X5603	\$44.50 ppd.
<input type="checkbox"/>	Black <input type="checkbox"/> Brown <input type="checkbox"/> Size and Width	
<input type="checkbox"/>	NOTE: We also have this style in the Lace-Up	
<input type="checkbox"/>	Oxford Style No. X3251 <input type="checkbox"/>	\$44.50 ppd.
<input type="checkbox"/>	Black <input type="checkbox"/> Brown <input type="checkbox"/> Size and Width	
<input type="checkbox"/>	GENUINE SEA TURTLE MOC. SLIP-ON BUCKLE	
<input type="checkbox"/>	No. 1946 or No. 7023	\$44.50 ppd.
<input type="checkbox"/>	Black <input type="checkbox"/> Brown <input type="checkbox"/> Size and Width	

PLEASE MARK **X** ON STYLE AND COLOR WANTED.

A \$5.00 DEPOSIT ON C. O. D.s REQUIRED.

"SATISFACTION GUARANTEED OR YOUR MONEY BACK"

We specialize in exclusive styles that are not available in retail stores. Thousands of customers from every state in the union order these fine classic styles with assurance. We have a record of more than 30 years of proved dependability and Navarro Brothers stand behind every pair with a satisfaction or money back guarantee.

If you send us your shoe size and width we can send you a perfect fitting shoe. When ordering shoes from us just send us the style number wanted. Please don't forget to send the size and color. Be sure and send a \$5.00 deposit on every pair that you order. We'll send the balance COD. However, if you send the total amount we'll send the shoes post-paid and you will save about 2.00 on each pair on postage and COD fee. We do not recommend our shoes if you wear a narrow width such as a AA or AAA.

You do NOT pay a sales tax unless you live in the State of Texas. If you reside in Texas please add 5% for the Sales Tax. You do not have to pay a sales tax even if your state has a sales tax.

If you would like to have our catalogue sent to your friends please send us their names and address. We'll send it at once. It's free. When you're in El Paso we extend an invitation to visit our shop.

## ORDER FORM

Please send me.....Pairs shoes marked above. Date.....

Name (Please Print).....Address.....

City..... State..... Zip Code..... Chk. or M. O. for \$.....enclosed for full amount, ship

post-paid Chk. or M. O. enclosed for \$.....ship balance C. O. D. plus postage and C.O.D. fee.

**NAVARRO BROTHERS**

213 So. El Paso St.

El Paso, Texas 79901

# Navarro Brothers

213 SO. EL PASO ST.  
PHONE 532-4232  
EL PASO, TEXAS 79901

*Fine Imports*

October 1, 1973

Dear Customer:

We are sure that you are well aware of the pressure of the rising costs that have resulted from the tremendous inflation that has been experienced everywhere in the world. In the last year and a half we have experienced several raises in the leather market. In that time leather has gone up more than 100% besides the higher costs of production.

We are thankful that we had bought enough shoes and Jodphurs from our manufacturers thru binding contracts that will enable us to sell you most of our shoes at the same price as last year. The only products that the price had to be raised on, are the cowboy boots and the Sea-Turtle shoes. However, in the Sea-Turtle shoes we do not have a complete range of sizes or widths. The Jodphurs and the Sharkskin shoes are still the same price as last year.

We do not want to overlook this opportunity to express another word of thanks for the business that you have sent our way and please remember that we will keep on trying to please you and to send you a pair of shoes that you'll be proud to wear and that you'll enjoy. Remember that if after you receive the shoes, boots or Jodphurs, you are not completely pleased, just send them back and we'll return your money.

Our sincere thanks for your loyalty,  
NAVARRO BROTHERS,



Ruben Navarro

RN:lmg

We are offering to you this aristocratic looking slip-on made of the finest alligator-calf. Fully leather lined and genuine Goodyear-Welts. These shoes fit like a glove and they have status and are the kind of shoe that everyone will ask you "Where did you buy them"? Made for us in Mexico by Do-mit and by their craftsmen that take their time in doing things right. They come in Black and also in Brown and in sizes from 6 to 13 and from B to E widths. Send for a pair and if you are not 100% pleased just return them and we'll return your money. Send us your correct size and width and we'll send you a perfect fitting shoe. Please ask for style #3456



**\$32<sup>50</sup> ppd.**

Or Send \$5.00 Deposit on C.O.D.s.

★

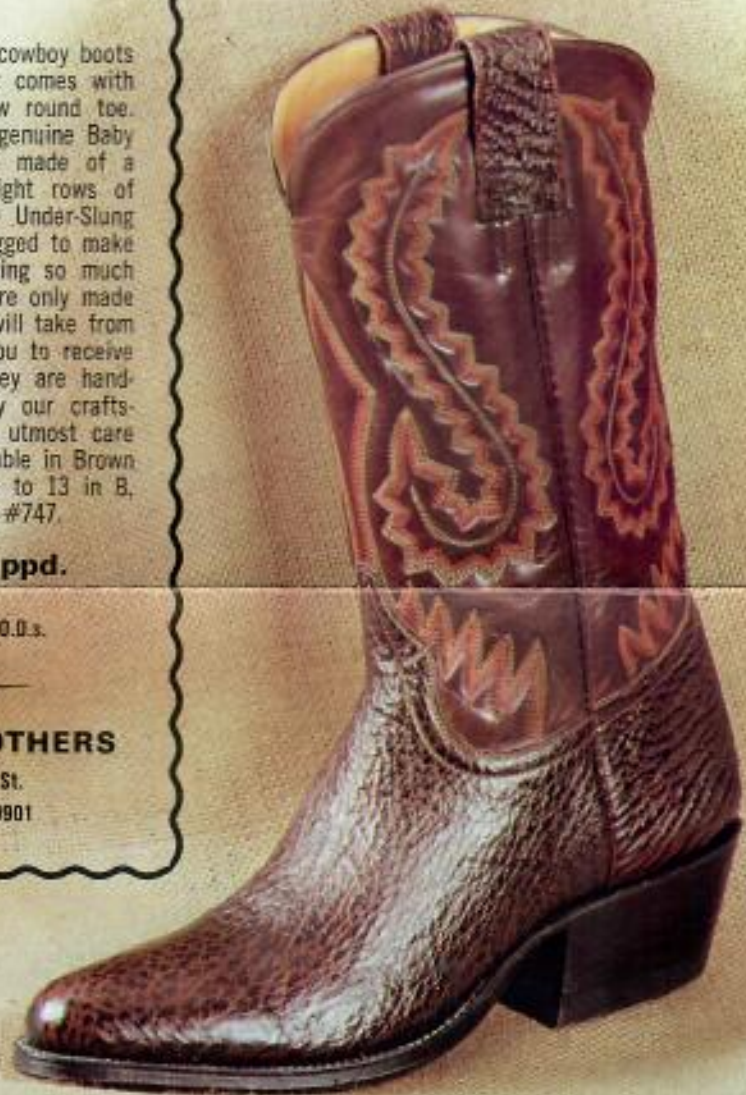
This is one of the finest cowboy boots that we ever offered. It comes with a plain vamp and a new round toe. The vamps are made of genuine Baby Shark and the tops are made of a soft kid leather with eight rows of stitching. They have the Under-Slung heels and are wooden-pegged to make the wearing and the fitting so much better. As these boots are only made upon a special order, it will take from four to five weeks for you to receive them. Remember that they are hand-made and hand-lasted by our craftsmen in Mexico with the utmost care and patience. Only available in Brown or Black in sizes from 6 to 13 in B, C, D and E widths. Style #747.

**\$57<sup>50</sup> ppd.**

Send \$10.00 on C.O.D.s.

**NAVARRO BROTHERS**

213 S. El Paso St.  
El Paso, Texas 79901





Order Style 1947  
for our European Look  
Plain Toe Slip-On  
with Chain Ornament

**5995** Postage is Prepaid  
Just a little bit dressier . . . just  
a little bit sleeker. The Gold  
plated chain gives this shoe an  
aristocratic look. Also available  
in two colors: Black or Brown.  
Sizes 6-13, B through E widths

*Our traditional rendering of today's  
most desired luxury leather...*

## **The Sea Turtle Shoes**

*Benchmade and handlasted for us by Domit of Mexico.*

Shoes that offer a favoring appearance, with the added benefit of those who see them on you, knowing you are wearing the Mercedes-Benz of leathers.

The sea turtle is another product of the inlet protected Pacific Ocean waters. He propagates in warm protected waters such as only Mexico provides. Comprable to the baby alligator leather in luxurious look and stamina. For years, declared a protected, endangered species by a joint American-Mexican Commission.

Today it still requires a special license to import these shoes of genuine sea turtle. Allotment of sea turtle skins are made to certain tanners that wouldn't for the world engage in illicit trafficking of sea turtle skins.

The importance of our stressing this is to make two points:

One: to let you know that our makers have their reputation to protect, and two: that Navarro Bros. is fortunate to have this long-time association with Domit of Mexico to insure the availability of Sea Turtle classics.

So, you can look to Navarro Bros. to afford you a luxury leather, unique to Mexico, plus the craft of a luxury maker who excels in the art of genuine hand lasted, bench made shoes. *Only the choicest sea turtle skins are utilized in the making of these five styles.*

Our tanners pay premium prices for their catch of sea turtle, so skins must necessarily be the best. Note the size of the ingrains - this is the tell-tale story of the skin's quality. Note their evenness and spacing, the absence of weakened areas found in sub-standard skins. These shoes possess fashionable

good looks.

*A few words about comfort and wear.*

Again it's the leather that provides the comfort. The kind of leather that takes stress and holds its shape to give proper support and comfort. Yes, hour-after-hour comfort.

*Fully Leather Lined-Carefully Hand Detailed. Goodyear Welt.*

Some importers, seizing upon the limited availability of this type of shoe, keep their prices down by not lining the inner portions of their shoes. Navarro Bros., though we sell our shoes at the moderate price of **5995**, offers you a fully leather lined Sea Turtle Classic. Prices to us are higher, but our quality is not down. There's been no skimping. We have to face our customers again and again and we do it with confidence for this reason.



Order Style 7023  
for our Side-Buckle  
Slip-On Casual

**5995** Postage is Prepaid  
Contour shaped toe with a  
streamlined look narrowing  
down under the brass buckled  
strap. Available in Black or  
Brown, in all sizes from 6  
through 14, in A to E widths.

Order Style 1946  
for our Slip-On  
Buckled Style

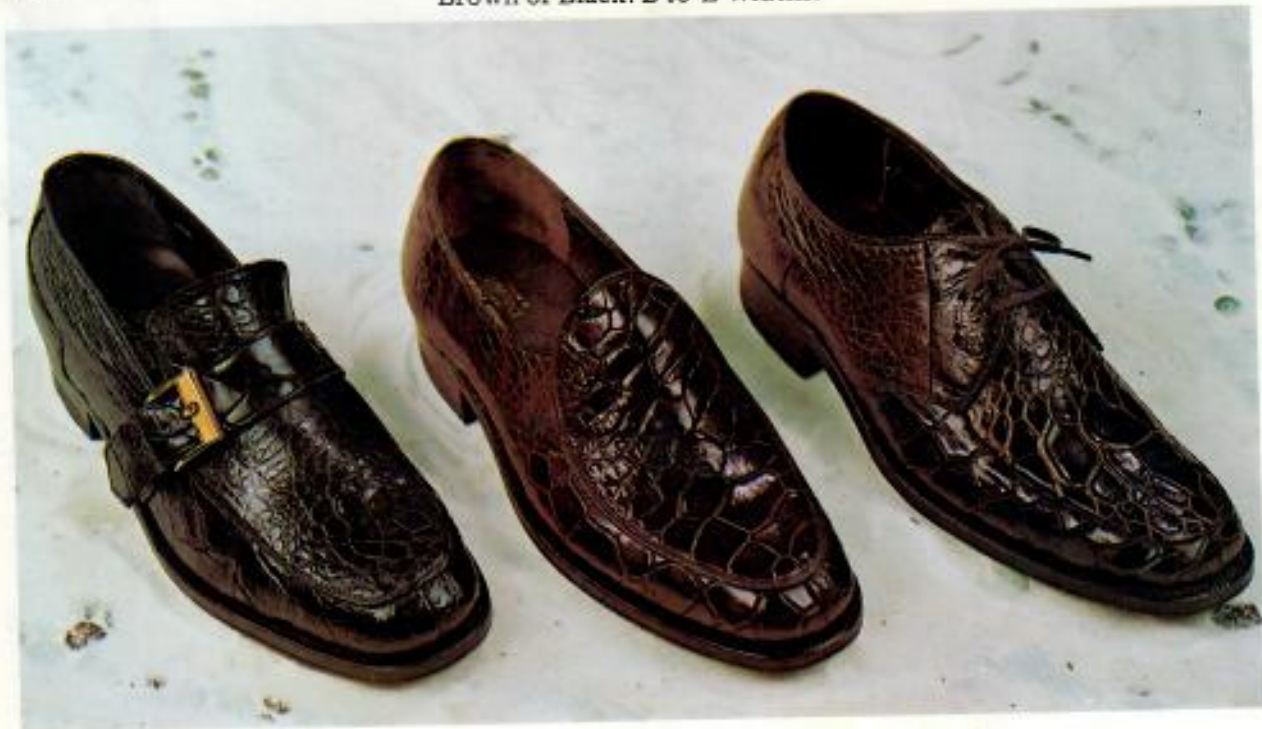
**5995** Postage is Prepaid  
A Navarro original. The buckle  
moccasin with a semi square  
toe. Available in Black or Brown.  
Each with Brass buckle. In all  
sizes 6 through 14. A to E  
widths.

Order Style X5603  
for the always favored  
Classic Slip-On

**5995** Postage is Prepaid  
The style is a modified moc-  
casin. Our traditional rendering  
of today's most popular style.  
A simple adamant slip-on. That  
is why we offer it in sizes  
from 4 through 13½ in both  
Brown or Black. B to E Widths.

Order Style X3251  
for the 3-EYE  
OXFORD TIE

**5995** Postage Prepaid  
An excellent shoe for business  
or dress. Styled for the man  
who is accustomed to a con-  
ventional 3-yelet blucher tie.  
Sizes 4 thru 13½. Colors: Black,  
or Brown. Widths: B to E.



Received 11/18/77

NAVARRO  
BROTHERS

NAVARRO BROTHERS 213 SOUTH EL PASO ST., EL PASO, TEXAS 79901





**"THE BUFFALO" rugged winter warmth**

One of our most popular items, this single breasted ranch coat sports leather buttons and western style detailing. Genuine split cowhide with quilted sleeve liners and body lined in shearing of Dacron® polyester. It keeps you snug and warm even on the most frigid and blustery days. Order No. 3000. Colors: Beige and Chestnut. Postpaid

**SIZES:**

Regular 36-46... \$ 99.50  
 Long 40-46... \$109.50  
 Extra Large 48-50... \$114.50

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**HOTEL ISA LEI**

P.O. Box 1351  
Suva, Fiji Islands.  
Cable: Turtle, Suva.

# fiji



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fascinating at  
**HOTEL ISA LEI**

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# A UNIQUE CONCEPT IN TOURIST RESORT HOTELS!

## EVER HEARD OF A HOTEL SHAPED LIKE A TURTLE? TAKE A LOOK AT THE COVER AGAIN. SEE?

The Hotel Isa Lei is exciting in many ways. There's luxury living in 46 air-conditioned suites, superb cuisine in the restaurants, wining, dining and dancing in the cabaret lounge, exotic drinks to sample at the hotel's three bars, idle moments by the pool or on the putting green. And you're only a few minutes from Suva - Fiji's capital and the duty-free shopping centre of the South Pacific.

## EXCITINGLY DIFFERENT CUISINE

In the hotel's restaurants the world-class cuisine combines a fabulous blend of Indian, Continental and traditional Fijian dishes.

Take a dip in the Isa Lei's turtle-shaped pool (the largest in Fiji), or stroll through the 10 acres of tropical gardens and lawns. There's fun to be had, too, at the hotel's barbecue nights, on the patio overlooking picturesque Suva harbour.



## THREE INFORMAL BARS

Sip your favourite drink, or sample one of the Isa Lei specialties in the Bula Bar, the Ika Bar, or the Turtle Head Bar, with its spectacular Suva Harbour view

## A NIGHTCLUB ON YOUR DOORSTEP

Some of the fondest memories of your stay at Isa Lei will certainly include the Cabaret Night Club Lounge, where nightly floor shows of native entertainers and international acts are presented.



Every unit features luxurious, tasteful decor, air-conditioning, private terraces, telephone, bathroom. There are magnificent panoramic views of Suva Harbour, majestic mountain ranges and lush rain forests, from every room.



The many exquisite delights of Fiji are well within your reach — take away on sun-drenched, palm-fringed beaches, take a deep-sea fishing trip, a coral island cruise, or tour through the colourful native villages. A shopping jaunt in Suva is a rare experience — duty-free goods, sari-clad Indians, Fijians in native dress and open-air markets all add to the enjoyment that is your Fijian holiday . . . that started at the Hotel Ise Lei.

# fiji

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HOTEL ISA LEI  
P.O. Box 1351  
Suva, Fiji Islands.  
Cable: Turtle, Suva.



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fascinating at  
HOTEL ISA LEI



## Topical Tomes

*The Complete Book of Saltwater Aquarists.* Robert A. Stevenson, Jr., New York: Funk & Wagnalls, 1974. \$6.95

While no book on marine aquarium keeping is complete, Mr. Stevenson does an admirable job of introducing the fundamentals of setting up and maintaining marine aquariums and their delicate inhabitants. There is also much information included which could be enlightening to the more advanced aquarist.

There are several points which seem to have been overlooked by Mr. Stevenson. The explanation of a piece of equipment known as a protein skimmer includes a good description of the

advantages of its use, but not of its disadvantages. The section on lighting glosses over the fairly inexpensive and non-corroding strip lights now available for marine aquariums, while going into detail about do-it-yourself lighting systems which could be problematical for the beginner.

Despite other minor flaws, the book has very good sections on the collecting of marine specimens, fish behavior and decorating the aquarium. The black and white photographs and drawings are clear and well reproduced. This would be a good companion volume for any beginning aquarist, along with the drier technical treatments of procedures for maintaining marine animals. □

## SEA TURTLES RETURN TO THE WILD

In the interest of conservation, the Aquarium has returned three loggerhead turtles to the wild in John Pennekamp State Park, the country's only continental underwater park, located off Key Largo, Florida.

The loggerheads left Chicago in the Aquarium collecting truck for the two-day trip to Florida accompanied by Donald Zumwalt, Aquarium curator of fishes. The truck will return to Chicago with specimens collected in the Florida Keys on the Aquarium collecting boat.

Sometimes referred to as the garbage disposals of Shedd Aquarium because of their voracious appetites, the turtles were carefully weighed and measured before making the trip. The largest weighed in at a healthy 92 pounds and measured 22-1/16 inches. The turtles

were all between 3-1/2 and 5 years old.

Supervised by the Florida Department of Resources, the turtles were tagged before being released so that their patterns of growth and migration can be observed and recorded. The Miami Seaquarium also assisted in the venture.

William P. Braker, Aquarium director, noted, "Numbers of sea turtles are declining and some species have reached dangerously low levels. Although the loggerhead is not in danger of becoming extinct, returning these animals to the wild will enable further study of their habits and development."

Loggerheads similar to these can be seen in the Coral Reef exhibit where they are fed twice daily by divers during the regular feeding shows at 11 a.m. and 2 p.m. □



Here's a fellow who seems to enjoy tipping the scales, and he probably also enjoys swimming in the Atlantic Ocean where he now lives in the wild.

## Brown Pelican Population Increases

California's only nesting colony of brown pelicans appears on the road to recovery with the report that 305 young were hatched this year in contrast to one produced in 1970, according to the Wildlife Management Institute.

California Department of Fish and Game and U.S. Fish and Wildlife Service biologists found pelicans nesting on West Anacapa Island, the Channel Islands National Monument, and nearby Santa Cruz Island. Similar reports of successful nesting on several islands off Mexico are encouraging signs that pelicans are recovering from reproductive failure attributed to ocean pollution by DDT.

The Department of Fish and Game said that National Park Service action closing West Anacapa Island to public access during the nesting season contributed to the nesting success. □



## Please Pass the Salt

How many recipes have you seen calling for 62,000 pounds (that's 31 tons) of salt? Well, that's what the recipe for making salt water at the Aquarium requires and that's more than a few bags of salt—620 to be exact! There are 100-pound bags in every nook and cranny of the Aquarium waiting to be mixed with trace elements in just the right amounts for our salt water reservoirs.

In the past it cost less to bring the salt water by barge from Florida to the Aquarium and the last shipment was received three years ago. Now, though, with the rising cost of transportation, it will be more economical to make our own.

The Aquarium reservoirs hold about 1,000,000 gallons of salt water. The 62,000 pounds will make a total of 285,000 gallons, or a bit more than one-fourth of the total supply.

The salt water is mixed in a 600-gallon tank with an electric mixer. Twelve 100-pound bags of salt are added to the water and dissolved. The water is then transferred into the large reservoirs through a garden hose. This supply will last indefinitely except for small amounts that are lost through evaporation. □

Vol XVI No. 1  
JAN

# Legislation

LIBRARY OF

GEORGE H. PALAZZ

## FRESH START FOR ZOO & AQUARIUM LEGISLATION

The closing session of the 93rd Congress will see the demise of all Bills which were not acted upon. All legislation must be introduced again in the 94th Congress as there is no carryover of Bills. The AAZPA does not expect a proliferation of introductions which we would find objectionable but we shall maintain a close watch of legislation that will affect operation of our institutions. We do anticipate the reintroduction of Representative Dingell's Bill to establish a Federal Zoo and Aquarium Accreditation Board. We have offered Mr. Dingell our expertise regarding any legislation that may be proposed and we hope he will take advantage of this offer. We continue to be concerned with regulations which implement existing laws. Mr. Hagen, AAZPA Legislative Liaison and your Legislative Committee will monitor these proposed regulations closely and advise the membership of pertinent additions, revisions, or deletions.

(Robert O. Wagner and William Hagen)

### Whose Critters Are Whose?

The FWS and the National Marine Fisheries Service (NMFS) have approved a Memorandum of Understanding concerning the respective jurisdictions of each Service in the listing of species as threatened or endangered.

The memorandum, signed by NMFS Director Robert W. Schoning and by Director Greenwalt, represents a needed step forward because it clarifies most of the grey areas of undefined or overlapping responsibilities.

The problem began when the Bureau of Commercial Fisheries was shifted to the Commerce Department. The implementing orders didn't specify which outfit was to have responsibility for which species.

The new agreement, however, clears up the fuzzy areas by spelling out the species each agency will be responsible for and setting up a procedure for joint responsibility of some species.

The NMFS will determine whether the following are to be listed as threatened or endangered:

- all species of whales.
- all species of seals and sea lions except walruses.
- all commercially harvested mollusks and crustaceans.

- all other species which spend the major portion of their lives in marine waters.

The FWS will determine whether the following are to be listed as threatened or endangered:

- all species of mammals except whales, sea lions, and seals.
- all species of birds.
- all species of reptiles except two families of sea turtles.

- all species of amphibians.
- all other species which spend a major portion of their lives on land and/or in fresh water.

The FWS is responsible for maintaining the official list of threatened and endangered species. When the NMFS director decides a species under his agency's jurisdiction should be added to or deleted from the list, or have its status changed between threatened or endangered, the public will be informed of the proposal by a notice in the Federal Register. Both directors will sign the notice, signifying they mutually agree on the action.

The agreement calls for joint responsibility for two families of sea turtles—green and hawksbill.

Lastly, both directors agreed not to take any unilateral action on listing plant species as threatened or endangered until jurisdictional lines are drawn.

This agreement was signed in a spirit of cooperation, and, even though areas of discussion remain, it is viewed by Director Greenwalt and Director Schoning as a commitment to work closely.

### MARINE MAMMAL REGULATIONS

The National Marine Fisheries Service, Department of Commerce, has issued final regulations regarding endangered species: importation permits and enforcement. These appeared in the FEDERAL REGISTER, Vol. 39, no. 230, November 27, 1974. NMF has said that copies will be provided Wheeling for distribution. However, if you do not receive your copy by about January 25, write to the Director, NMF, Washington D.C. 20235, requesting a copy.

(WILLIAM HAGEN)

### FROM FISH AND WILDLIFE NEWS

The following three articles have been reproduced from the October 1974 issue of Fish and Wildlife News, the newsletter of the Fish and Wildlife Service of the U.S.D.I.

#### PERMIT PROBLEMS SOLVED

Confusion over interpretation of the Endangered Species Act for Service personnel was dispelled recently.

Some were saying the law prohibited Fish and Wildlife Service personnel from acting in emergency or nuisance situations such as removing an alligator from a picnic area without a permit.

Others argued law enforcement officers couldn't seize and transport evidence without a permit if it was an endangered species.

Technically those interpretations were correct, but, obviously, they interfered with the reasonable implementation of the law.

The following points have been spelled out in a recent policy directive:

a. Law enforcement personnel are completely authorized to seize and detain endangered animals as evidence and to do other things necessary to carrying out their duties.

b. All Service personnel are authorized to take emergency actions in relation to nuisance or injured endangered animals. This authorization does not extend to research programs, since they can or should be planned well in advance and specific permits requested.

The Fish and Wildlife Service has under preparation a broad permit request covering emergency actions that might be expected in the future. This permit application will follow the regular procedure of public scrutiny and comment before it is granted.

In the interim it is expected that all personnel will use their best judgment as to when the conditions described above (in a and b) apply.

*American Association of Zoological Park and Aquariums  
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# For Your Calender

## COURSE IN VETERINARY CARE OF REPTILES

Fredric L. Frye, D.V.M., noted specialist in the veterinary care of reptiles, will conduct an intensive two-day course, "Practical Husbandry, Medicine, and Surgery of Captive Reptiles," on Saturday and Sunday, March 8-9, at the American Museum of Natural History in New York. The course is intended for veterinarians, personnel in research and educational institutions, herpetologists, animal keepers, and others concerned with the health care of reptiles. It is being sponsored by the University of California Extension, Berkeley, which presented a similar course conducted by Dr. Frye in Berkeley in the fall of 1973. Topics for slide-illustrated lectures and discussions will include: HUSBANDRY--housing, litter and cage enrichment material, nutrition and deficiency syndromes, water, humidity and temperature, photoperiodicity, reproduction, waste management; MEDICINE--infectious bacterial, fungal, protozoan and metazoan diseases, hematology, radiology, cardiology; PATHOLOGY--gross pathologic changes, normal histology, abnormal histology covering tumors, abscesses and other inflammatory lesions, acquired deficiency syndromes, parasitic diseases; SURGERY--anaesthesia, selected surgical procedures, pathology, neoplasia, obstetric and gynecological disorders including pregnancy diagnosis, reproductive diseases and surgical correction of obstetrical difficulties. Dr. Frye is a research associate at the Steinhart Aquarium in San Francisco and at the Donner Laboratory at the University of California at Berkeley, and is a lecturer at the UC Medical Center in San Francisco and the UC-Davis School of Veterinary Medicine. He is consultant to numerous research organizations; his most recent book HUSBANDRY, MEDICINE AND SURGERY OF CAPTIVE REPTILES will be available to course participants at a reduced price. The registration for the two-day course is \$60.00, and advance enrollment is advised. The California Academy of Veterinary Medicine will grant California veterinarians 12 credits toward membership; veterinarians in other states may request credit from their state associations. For further details write to Continuing Education in Sciences and Mathematics, University of California Extension, Berkeley, CA 94720, or call 415-642-1061.

## INTERNATIONAL SYMPOSIUM ON ZOO DESIGN AND CONSTRUCTION

This will be held at the Paignton Zoological & Botanical Gardens, Paignton, Devon, England from May 13-15, 1975. Papers are welcome on design aspects. For information, contact Mr. A. P. G. Michelmore, Hon. Managing Director, Paignton Zoological & Botanical Gardens, Ltd. Paignton, Devon England TQ4 7EU.

## HONOLULU SITE OF WESTERN REGIONAL

This conference promises to be a moving one, i.e. swaying palms, rolling surf, drifting clouds, undulating skirts, radiating sun and program. It will be held at the Hilton Hawaiian Village Hotel, March 31st through April 3rd, 1975, Honolulu, Hawaii. In addition to papers, there will be beach discussion groups. If there is a particular subject you would like to banter with among fellow professionals, then tell Tanya Waros, Conference Chairman, Honolulu Zoo. (Jack Throp)

## LEGISLATION, cont.

### **FWS TV SPOTS COMING**

Six TV public service spot announcements dealing with wildlife import regulations are now in production and should start appearing on local networks by late autumn.

They encourage the general public to familiarize themselves with the law concerning wildlife buying. Moreover they invite write-ins for a detailed brochure on the do's and don'ts of wildlife buying both here and abroad.

The first three spots portray a Zoo Scene with alligator shoes in a cage instead of an animal, a garden scene with the blue tubes boasting the best wildlife buys, and a display of wildlife products confiscated from American travelers.

They'll be done in 10 second, 30 second, and 60 second versions and distributed to all major TV stations across the country.

The next series of three, planned for distribution in late winter, will each feature a well-known celebrity (yet to be chosen) who will plead the fish and wildlife case before the public and also encourage write-ins.

Competition is tough for public service time at local stations. Quality of production and substance of the message usually separate the sheep from the goats. Odds are better than even that the FWS spots will stand out from the ordinary, so look for them in and around programmed wildlife shows.

# Conservation

## ZOOS AND THE ECOLOGY

The following is a copy of an editorial that appeared in the December issue of Veterinary Economics. We have been given permission for the editorial to be reprinted in the Newsletter by John D. Velardo, Editorial Director of Veterinary Economics, a journal that is distributed to more than 25,000 veterinarians.

"We live in a world that is becoming increasingly ecology-conscious. People everywhere are rallying behind the environmentalist, striving to help save what is left of our planet's diminishing natural treasures. This trend is an encouraging one, even to those of us who may feel that progress to date has been slower than it ought to be.

"Veterinarians should, of course support measures designed to protect any of the natural resources, whether it be water, air, plant life, or animal life. This is a responsibility that must be borne by every human being. But we veterinarians, because of our lifelong dedication to the well-being of animals, should be especially alert to opportunities to help protect the untamed creatures inhabiting our lands and seas. One good way to achieve that objective, we submit, is to support the activities of properly-managed zoological parks.

"Someone may argue that supporting zoos for ecological reasons would be like putting the canary in the cat's cage for safe-keeping. Is it not true that zoos remove animals from their native habitats in such great numbers that they endanger the future survival of many species in the wild?

"No, it is not true, for several reasons. In the first place, zoos are not major recipients of captured wild animals. We understand that, of all exotic animals brought into the U.S. in recent years, only about one percent were intended for zoos. A greater number were for research institutions and the greatest proportion of all was taken by the pet shop trade. But even that one percent would be too many if the receiving zoos did no more than simply place the animals on exhibit. Today's professional-managed zoological parks are more than wildlife displays. They are also more than public education facilities. They have become, in fact, major propagators of animals that are on the endangered species list. Long-range thinking in the zoo profession might be summarized as follows:

"Provide the best possible breeding environment for animals in captivity. Learn every-

thing there is to know about them. Propagate them. Be ready, -so that if some natural or man-caused disaster wipes out the wild population, it will be possible to re-stock them in their natural habitat with contributions from the bank of animals spread around in the many zoos of the world.

"It is largely because of this kind of thinking by zoo managers that certain species of animal exist at all today. Among them is the American bison, which was saved from extinction largely through the cooperative efforts of the New York Zoological Society and the American Bison Society. Another is Pere David's Deer, once native to China, but killed off in 1900 by man and natural disaster, so that it now exists only in zoos. Still another is the Arabian oryx, which was reduced to a total world population of less than 20 before careful zoo-breeding saved the species from extinction. Many exotic cats are now dangerously few in number. And, because of their inability to cope with changes in the natural environment, they continue to diminish. To reverse the trend, naturalists hope to take cats born in zoos and release them in natural parks near their ancestral locales. The same has been done with other types of animals. And more such action will almost certainly be required if our wildlife conservation objectives are ever to be achieved.

"Ironically, such attempts to revive endangered species through captive breeding have been inhibited by, of all things, certain provisions of our country's environment protection laws. For a number of obviously good reasons, rigid restrictions have been placed on the import, export, and interstate sale and transportation of animals on the endangered species list. Unfortunately, however, these restrictions, which apply to all (including private breeders, animal dealers, and zoos), sometimes discourage zoos from breeding rare animals. If a zoo's population of a certain species is already as large as can be accommodated and, if the offspring cannot be sold to zoos in other states, any new births could seriously overcrowd existing facilities. Because of that danger, some zoos have stopped breeding animals that others want so desperately. In such instances, the law is counterproductive to its own objectives.

"Matters such as these are, of course, a responsibility of the American Association of Zoological Parks and Aquariums (AAZPA) and the American Association of Zoo Veterinarians (AAZV). From our vantage point, we wonder if their efforts might not benefit from some AVMA support. Perhaps, if they have not already done so, the Washington offices of AVMA



and AAZPA should meet to explore how the veterinary profession can be of help. On the local level, we practitioners can do our part by becoming better acquainted with the people operating zoos in our areas. They can use our support. As in any field, there are good zoos and bad ones and there is no question where our interest should be. Zoos worthy of our support are those which not only entertain and educate the public, but also provide the kind of captive environment that contributes to the wildlife conservation effort. Their propagation of endangered species may well be one of the best means of insuring the continuing presence of wildlife on this planet."

(Leonard J. Goss)

### SINAI LEOPARD, BELIEVED LONG EXTINCT, IS PHOTOGRAPHED BY ISRAELI CONSERVATIONISTS

A race of Sinai leopard long believed to have been extinct has been photographed in the Judean hills above the Dead Sea, it was announced today (19 Dec 1974) by naturalist Roger Caras, President of the Holy Land Conservation Fund.

Mr. Caras received the photographs and documentation from Avraham Yoffe, Director of Israel's Nature Reserves Authority and a retired general noted for his exploits in the Six-Day war. General Yoffe has established some 160 nature reserves in Israel.

The leopard was photographed near the oasis of Ein Gedi, about twenty miles south of the locale where the Dead Sea Scrolls were discovered in 1947. Ein Gedi, now an important nature reserve, means "hill of the goats" and is prominently mentioned in the Bible as the place where young David hid in exile from King Saul. The goats in question are Nubian ibex, which once roamed the region in abundance. A decade ago they were a threatened species but, as a result of Israeli conservation policies inaugurated by General Yoffe, they have been closely protected and their numbers have risen to more than 2,000. A wild herd roams the Ein Gedi oasis.

It was the carcass of a freshly-killed ibex which led the Israeli conservationists to the leopard. Six years ago a mother leopard with one cub was killed by a Bedouin. According to General Yoffe, "the cub escaped, and four years ago leopard tracks were discovered on the slopes of Ein Gedi. Others claimed to have seen the leopards but these claims were contradicted by academics, both within Israel and abroad, who insisted that no leopards survived

in Israel. A few even maintained that there never had been wild leopards in the Holy Land," the general said.

"For four years we have provided freshly killed meat for these leopards--perhaps as many as six or seven survive in the Judean hills--and attempted, through the construction of blinds, to photograph them. Finally, in early November, Giyora Ilany, a zoologist, photographed the leopard for the Holy Land Conservation Fund, --the very first time this has happened," General Yoffe added with considerable satisfaction.

It is not certain whether this leopard is a geographical race or a subspecies. It is also called the Palestinian as well as the Sinai leopard. The feeding program was designed to take advantage of the willingness of all large cats to be scavengers. By feeding the still unseen leopards in the hills Israeli game wardens kept the cats from preying on livestock and coming into conflict with agricultural interests. The program has been called "a classic example of intelligent wildlife management," Mr. Caras said.

(Press Release-Holy Land Conservation Fund)

## **Education Corner**

### NEW YORK STATE ZOO & AQUARIUM CONFERENCE

A 3 day conference on graphics, exhibition, & education was sponsored by the New York State Council on the Arts and hosted by the New York Zoological Society from November 18-20. Participants from 10 state institutions and visitors from 4 out-of-state institutions discussed common problems in exhibit interpretation and management. Details were discussed which regarded the development of a prototype identification labelling system as part of the overall interpretive program. This conference was the first time New York State Zoos and Aquariums met formally to communicate about statewide programs. Discussion and programs were conducted by W. Conway, E. Aliman, J. Sutton and K. Hensel of the New York Zoological Society, T. William of State University of New York, Buffalo, R. Mulcahey of The National Zoo, and R. Lyons of New England Aquarium. Limited copies of materials distributed during the conference are available from the conference coordinator, Dr. James W. Waddick, by writing to New York Zoological Society, Bronx NY 10460. (James W. Waddick)

**THE SHARK** by Jacques-Yves Cousteau and Philippe Cousteau presents an adventurous and scientifically accurate account of the Cousteau expedition in the Calypso in 1967 to study the splendid savages of the sea. 144 photographs (124 in full color), and 25 drawings. 290 pages; 7" x 10". (1970) \$12.95.

**LIFE IN AND AROUND THE SALT MARSHES** by Michael J. Ursin is a handbook of plant and animal life covering the temperate Atlantic coastal marshes. Covers over 250 species. 20 excellent color photographs. 144 pages, (1972) \$4.95.



*EIGHT BELLS* by Winslow Homer is a full-color print of an oil painting. Image size 21" x 18". \$6.00.

**THE MANY SPLENDORED FISHES OF THE ATLANTIC COAST** by Gar Goodson is an identification manual with full-color paintings and descriptions of 408 fishes of the Atlantic coasts of North and South America, the Gulf of Mexico, Bermuda, the Bahamas, and the Caribbean. 210 pages; 4 3/4" x 7". Paperbound. (1976) \$2.95.

**DANGEROUS MARINE ANIMALS** by Bruce W. Halstead tells about 19 sea creatures that bite, 70 that sting, and 72 that can poison you if you eat them. These unfriendly types are illustrated with 123 photographs and 34 drawings. 153 pages. \$5.00

**THE OUTLAW GUNNER** by Harry M. Walsh tells the story of market gunning, both legal and illegal, for wildfowl on the Chesapeake Bay, Outer Banks, and tidewater Delaware, Maryland, Virginia, and North Carolina. 150 rare and intriguing photos. 192 pages. (1971) \$8.50.

**THE LOBSTER: Its Life Cycle**, by Herb Taylor, is a short, natural history of the Maine lobster. This is a popular, rather than technical, study. 80 pages, 61 illustrations (most in color), index, 6" x 9". 1975. \$5.95.

**FISHES OF THE WORLD**, by Alwyne Wheeler, is an illustrated dictionary describing all the known orders of fish. Each fish is described according to range, size, habitat, commercial importance, behavior, and biology. 366 pages, more than 500 color photos and 700 line drawings, 9 1/2" x 12" 1975, \$27.50.

## Bargains

(while the supply lasts)

**BOATS AND BOATMEN OF PAKISTAN** by Basil Greenhill is a classic work on the maritime life of East Pakistan, which is now Bangladesh. The author is the director of the British National Maritime Museum. 191 pages, 54 illustrations, bibliography, index, 6" x 9". 1971. \$2.50.

**THE BOUNTY SHIPS OF FRANCE**, by Alan Villiers and Henri Picard, is the history of the subsidized sailing ships of the French merchant marine between 1870 and 1920. 240 pages, 62 photos and drawings. 7" x 10". 1972. \$5.98.

**SONS OF SINBAD**, by Alan Villiers, is the account of the author's voyage in a big, deep-sea dhow from Kuwait, down the east coast of Africa to Zanzibar and home again, in 1938. 414 pages, maps, 50 photos, index, paperbound. \$1.00.

## Cook Books

An  Book

**CLAM SHACK COOKERY** by Phil Schwind is about gathering edible sealife along the shore and preparing it for cooking, with time-tested traditional Cape Cod recipes for mouth-watering meals. Along with the factual material are anecdotes and tall tales, which make delightful reading. Covers clams, quahogs, scallops, mackerel, mussels, striped bass, eels and more. 104 pages, 20 ills. by Gordon Brooks. 1975. \$6.95.

**GALLEY SLAVE'S GUIDE**, compiled by the Ladies Sailing Group, West Vancouver Yacht Club, gives those cooks' favorite recipes for meals afloat. This book works like a church supper: because it includes each cook's favorite dish, the eating is mighty good. 69 pages.

**LONG ISLAND SEAFOOD COOKBOOK** by J. George Frederick is a reprint of a book originally published in 1939. The more than 400 recipes include oysters, clams, mussels, eels, crabs, lobster, shrimp, scallops, and more. Index, 5 1/2" x 8 1/2". Paperbound. 324 pages. \$3.00.

# Cruising Guides

**THE WATERWAY GUIDE** is a cruising guide in three editions covering the Atlantic and Gulf Coasts of the U.S. Lists more than 3,000 marinas, fuel stops, and repair facilities, which are pinpointed on over 700 2-color spotting charts. There are hundreds of illustrations, a number of special articles, and information of vital interest to boatmen.

Southern Edition — Georgia/Florida border to Texas/Mexico border — \$5.95.

**YACHTSMAN'S GUIDE TO THE BAHAMAS**, 1976 edited by Harry Kline, is a thorough cruising guide with a wealth of detailed information and large-scale sketch charts, 129 charts, 181 profile sketches of approaches and other photos and drawings, 348 pages. Advertising. Plastic-ring bound. \$4.95.

**A CRUISING GUIDE TO THE NEW ENGLAND COAST**, by Roger F. Duncan and John P. Ware, is the 1972 edition of this standard cruiser's helper, originally published in 1937. Yachtsmen Downeast swear by it. 48 photos and charts, 619 pages, \$15.00.

**CRUISING GUIDE TO THE ABACOS** by Julius M. Wilensky provides detailed sailing directions from Cherokee Sound to Walker's Cay with charts and photos together with general chapters on routes to the Abacos, sailing conditions, radio communications, and chartering information in the Abacos, and travel tips and supplies and services in the Bahamas. 67 charts, 89 photos. Supplement of 16 color aerial photos. Separate booklet of 1976 tide tables, 212 pages, 8½" x 11". (1976) \$12.95.

**FRANCE — THE QUIET WAY**, by John Liley, describes the best way to see France — by canal, of course. In a combination cruising guide picture book, the author gives historical detail, practical advice, and a feeling of the character and atmosphere of the French canals. 159 pages, 150 photos and maps 10" x 8", index. 1975. \$12.75.

## Sea Life

**WHALES AND DOLPHINS** by Everhard J. Slijper introduces the reader to all facets of the biology and behavior of these marine mammals. The author explains how they swim, breathe, and dive; he discusses their mating and social behavior, their communication, nutrition, metabolism, and reproduction; and he reviews their geographical distribution and migratory patterns. 81 illustrations. Originally published in German in 1962. 178 pages. Paperbound. \$2.95.

**THE COLLECTOR'S ENCYCLOPEDIA OF SHELLS**, edited by S. Peter Dance is a comprehensive reference guide to seashells around the world. Over 2,000 species are arranged in systematic order and identified with over 1,500 well-produced color photographs. 288 pages, index, 7½" x 10". 1974, \$19.95.

**THE EDIBLE SEA** by Paul J. and Mavis A. Hill covers sea life from the standpoint of what is edible, what is toxic, where it is found, how to identify it, how to catch or gather it, and how to prepare it for the table. Deals with crustaceans, mollusks, fishes, marine reptiles and mammals, echinoderms, and sea weeds. 148 illustrations, 7 in full color. 276 pages (1975) \$15.00.



An  Print

**THE GRACIE** by William Pierce Stubbs is a full-color print of an oil painting of the fast-looking schooner built in 1872 at Cohasset, Massachusetts. Image size 19½" x 13½". On heavy paper \$6.95.

**SECRETS OF THE DEEP** by Stephen Spotte is a well-written, nicely illustrated book about the sea and the shore and their plant, animal, fish, and bird life. 35 drawings by Gordy Allen. 155 pages. (1976) \$7.95.

**THE NOCTURNAL WORLD OF THE LOBSTER** by Joseph J. Cook describes in text and excellent photographs the clawed lobster, the crayfish, and the spiny lobster. 57 photos. 80 pp.; 9" x 7". (1972) \$4.50.

**A SEAL CALLED ANDRE**, by Harry Goodridge and Lew Dietz, is the story of the 14-year friendship between the Rockport, Maine, harbor master and a harbor seal. Andre, who is as comfortable in the Goodridges' home as he is in Penobscot Bay, is better known around these parts than most politicians. 181 pages, 33 photos, 5½" x 8½". 1975, \$7.95.

**STALKING THE BLUE-EYED SCALLOP** by Euell Gibbons is the classic guide that describes what seafood there is for the taking on all three American coasts and how to harvest and cook it. Fine reading. 65 drawings; 348 pages. (1964) \$9.95.

aperbound. (1969) \$3.95.

An  Book

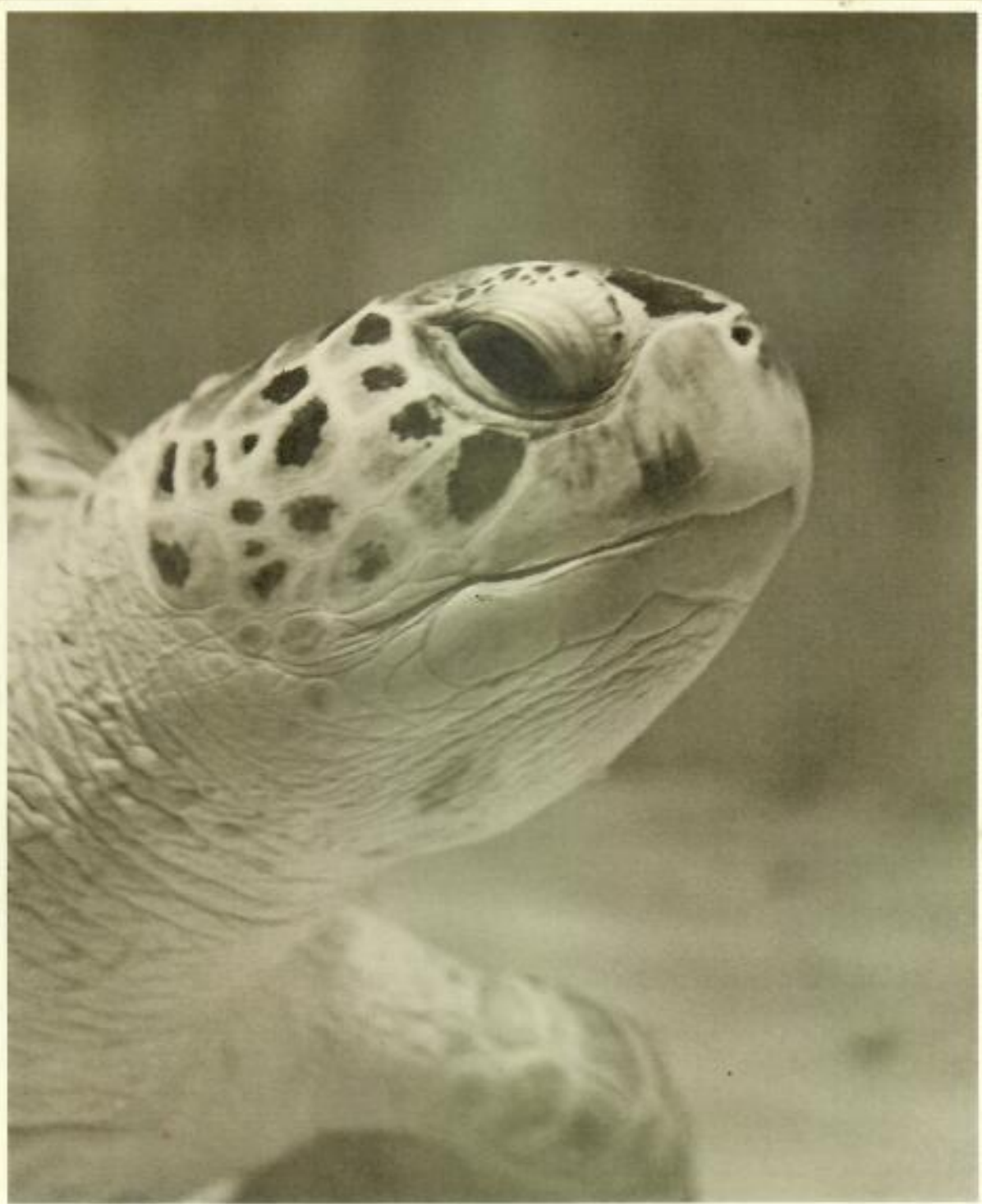
**THE BLUE WATER COOKBOOK** by Eva Palasti Brown is a practical manual that tells you how to equip and stock a boat's galley and how to serve appetizing meals while cruising. With the boat standing on her ear, Eva Brown tells you what to do with a can of peas. Includes a baker's dozen nice sketches by Denis Brown, the author's husband. 96 pages. 5½" x 8½". Plastic-ring bound to lie flat. Hole in top corner for hanging strop. (1976) \$4.95.

An  Book

**CAROLYN'S SEAFOOD RECIPES** by Carolyn T. Kelley, illustrated by Marcia Berntson Sims, is a book based on the author's monthly National Fisherman column. "Getting the best from Seafood." She tells how to prepare just about any seafood in ways to satisfy a variety of tastes. 102 pages. (1972). \$6.95.

**THE CREW'S CHOICE**, by Betty Baldrige, is a nice little cookbook for the small boat. Some of the topics: stocking perishable and non-perishable foods, one-pot dinners, main-dishes, and seafood dinners. 74 pp., spiral bound (it folds flat), 5½" x 8½". 1973, \$2.75.

**MADAME PRUNIER'S FISH COOKERY BOOK** edited by Ambrose Heath is a reprint of a book first published in 1939. Among the approximately 1,000 recipes in this book, there are many of the most delicious accomplishments of French fish cuisine. Glossary. Index. 292 pages. 5½" x 8½". Paperbound. \$3.00.



Atlantic green turtle. (Courtesy of  
Gordon Smith from The National  
Audubon Society.)

# MEET SOME OLD FACES.

in the **AMATEUR ZOOLOGIST'S GUIDE TO TURTLES AND CROCODILIANS**

*A northern diamondback terrapin breaks out of its egg. Notice the horny skin modification on the snout called a caruncle.*



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Faces that have remained virtually unchanged as you see them here for 285 million years. Turtles and crocodilians (in this country, the American alligator and crocodile) are present-day survivors of the oldest and most fascinating class of animals, Reptilia. Their ancestry traces back through evolutionary time to the dinosaurs and beyond, yet these same faces can be seen in American back yards and waterways today.

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**THE AMATEUR ZOOLOGIST'S GUIDE TO TURTLES AND CROCODILIANS**





**THE AMATEUR ZOOLOGIST'S GUIDE TO TURTLES AND CROCODILIANS** lists the more than fifty different kinds of turtles and crocodilians in the United States. Some species are native to almost every habitat area in the country—an invitation to everyone to open the book of natural history to reptiles and read one of nature's most fascinating stories. You'll meet many of these interesting faces in **THE AMATEUR ZOOLOGIST'S GUIDE TO TURTLES AND CROCODILIANS**:

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- **THE GOPHER TORTOISE:** One of three American *Gopherus*, a native of the southeast, a relative of the giant Galapagos tortoise, shares its communal twenty-five-foot burrow with frogs, lizards, snakes and insects.
- **THE SOFT-SHELLED TURTLES:** Agile on land and in water, these turtles bury themselves in soft-bottomed rivers, and stretch their snorkel-like nostrils to the surface to breathe.
- **AMERICAN CROCODILE:** The female crocodiles bury their eggs in a nest of sand two feet high and ten feet across. She "listens" by laying her head on this mound, digs the hatching crocodiles out, and gently carries them to the water in her jaws.
- **STINKPOTS:** When disturbed, these members of the musk turtle family emit a strong unpleasant secretion from glands located along the edge of their shell. Also called "stinking jims". Highly aquatic, but known to climb bushes and trees to bask.
- **AMERICAN ALLIGATOR:** The alligator features a special socket in its upper jaw to accommodate the large fourth tooth—so that no teeth are visible when its jaws are closed—which distinguishes it from the crocodile, even as juveniles.

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\$12.95 by Robert Zappalorti Associate Curator of Reptiles at the Staten Island Zoo in Staten Island, New York, is an open invitation to get acquainted with these faces and personalities. It includes a survey of all U.S. Families and an up-close study of representative members; professional advice on field study methods and care of captives; a glossary of herpetological terms, and a full bibliography and list of "herp" societies for further reference. Open a door to the natural world with: **THE AMATEUR ZOOLOGIST'S GUIDE TO TURTLES AND CROCODILIANS \$12.95**



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20	"	(sm)	15
10	"	(med)	20
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2	"	(sm)	15
1	"	(med)	20
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2	"	(x-lg adult)	35
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1	CUBAN ANOLE-Anolis	(adult)	30
1	SUDAN PLATED LIZARD-Gerrhosaurus	(adult)	30
3	JACKSON CHAMELEON-Chamaeleo	(adult) (female)	20
2	"	(adult male)	25
2	GILA MONSTER-Heloderma	(adult)	55
5	BEADED LIZARDS-Heloderma	(adult)	40
1	TEGU-Tupinambis	(med)	20
1	"	(x-lg adult)	35
2	NILE MONITOR-Varanus niloticus	(2")	25
1	DESERT MONITOR-V. exanthematicus	(sm)	12
1	MONITOR-Varanus spp.	(sm)	18
1	"	(2 1/2")	20
2	"	(3")	25

We are presently preparing a set of Varanus sp. skulls (approx. 15) for comparative studies. If interested, please inquire.



## SKULLS (cont'd)

## Snakes

3	RATTLESNAKES-Crotalus	(sm)	\$ 18 ea.
2	"	(med)	20
4	"	(lg adult)	25
2	"	(x-lg adult)	40
	VIPERS-Vipera; Trimeresurus & Bothrops:		
5	"	(sm)	18
2	"	(med)	20
3	"	(lg)	25
1	GABOON VIPER-Bitis gabonica	(x-lg adult)	65
1	WAGLER'S VIPER-Trimeresurus wagleri	(x-lg adult)	35
2	COTTONMOUTH-Agistrodon	(lg)	25
1	" -A. piscivorus	(x-lg)	40
2	COPPERHEAD-Agistrodon	(lg)	25
1	" -A. contortrix	(x-lg)	40
1	EASTERN CORAL SNAKE-Micrurus	(adult)	35
1	CENTRAL AMER. CORAL SNAKE-M. nigrocinctus	(x-lg)	40
2	BANDED KRAIT-Bungarus	(adult)	30
1	"	(x-lg adult)	40
1	BOOMSLANG-Dispholidus	(adult)	40
3	COBRA-Naja	(med)	25
2	"	(lg)	30
1	"	(x-lg)	40
2	SPITTING COBRA-Naja	(adult)	35
1	REAR-FANGED SNAKE	(lg)	30
1	MANGROVE SNAKE-Boiga dendrophila	(med)	25
2	"	(lg)	30
1	"	(x-lg adult)	40
1	MALAY BLIND SNAKE-Xenopeltis	(lg)	40
1	RAT SNAKE-Elaphe	(sm)	18
3	"	(med)	20
3	"	(lg)	25
	GOPHER SNAKES-Pituophis	(lg)	25
	KING SNAKES-Lampropeltis	(med-lg)	25
	RACERS-Coluber	(med-lg)	25
	GLOSSY SNAKES-Arizona	(med-lg)	25
	SAND SNAKES-Chinactis	(lg)	25
	ROSY BOAS-Lichanura	(lg)	25
	Ask about other No. Amer. harmless snakes. All are available.		
4	PYTHON-Python	(sm)	18
1	" (from 8' specimen)	(2")	25
3	" (from 11' specimen)	(3")	35
3	" (from 13' specimen)	(3 1/4")	45
1	" (from 15' specimen)	(4")	55
1	AMETHYSTINE PYTHON-Liaisis amethystinus	(sm)	20
1	" (from 10' specimen)	(2 3/4")	45



GABOON VIPER-  
Bitis gabonica

(cont'd)

SKULLS (cont'd)Snakes (cont'd)

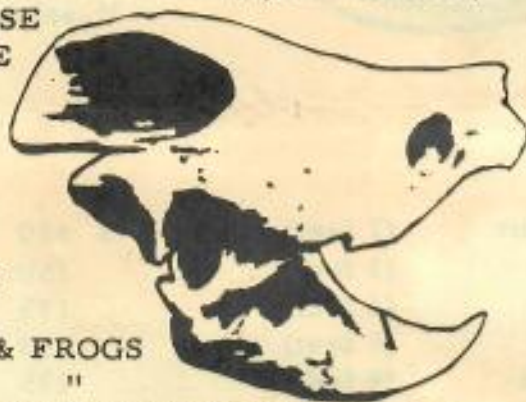
3	BOA CONSTRICTOR-Boa	(sm)	\$ 18 ea.
1	"	(from 8' specimen) (2 1/2")	25
1	ANACONDA-Eunectes	(from 8' specimen) (2 1/4")	30
1	"	(from 11' specimen) (2 3/4")	35
2	"	(from 16' specimen) (5 1/2")	65
	FLORIDA INDIGO SNAKES-Drymarchon corais couperi:		
1	"	(adult)	35
1	"	(x-lg adult)	45
1	TEXAS INDIGO-D. c. erebennus	(x-lg adult)	45
1	MEXICAN INDIGO-D. c. rubida	(x-lg adult)	45

Crocodylians

1	CROCODILE-Crocodylus	(2")	25
1	"	(6")	65
1	ALLIGATOR-Alligator	(2")	20
1	"	♂ 3")	30
2	CAIMAN-Caiman	(sm)	18
1	"	(2 1/2")	20
1	"	(3")	25
1	"	(3 1/4")	30
1	"	(4")	35

Turtles

1	SNAPPER	(neck & hyoid attached)	(4" head)	55
1	SIDE-NECK TURTLE	(hyoid attached)	(lg)	30
1	TORTOISE		(lg)	25
12	TURTLE		(sm)	15
5	"		(sm-med)	18
4	"		(med)	20
7	"		(lg)	25

Amphibians

4	TOADS & FROGS		(sm-med)	15
3	"		(lg)	20
1	BLOMBERGS TOAD-Bufo blombergi	(ribs & vertebrae attached)	(large adult)	35

Misc.

1	CONGO EEL SKULL		(lg)	25
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(cont'd)

SKULLS (cont'd)Misc. (cont'd)

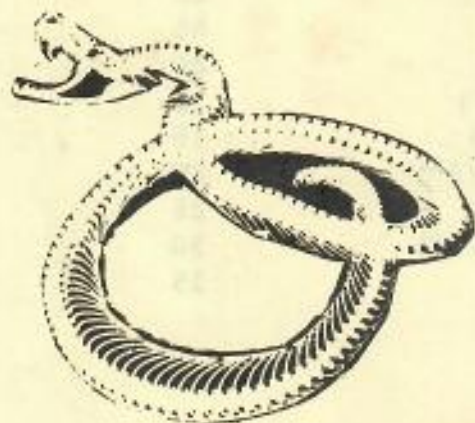
Assorted rattles:	(small)	\$ 2 ea.
	(medium)	3
	(large)	4
	(very large)	5
Hyoid apparatus from lizards, turtles & crocodilians		2

Note : All skulls are mounted on redwood or ebony bases.

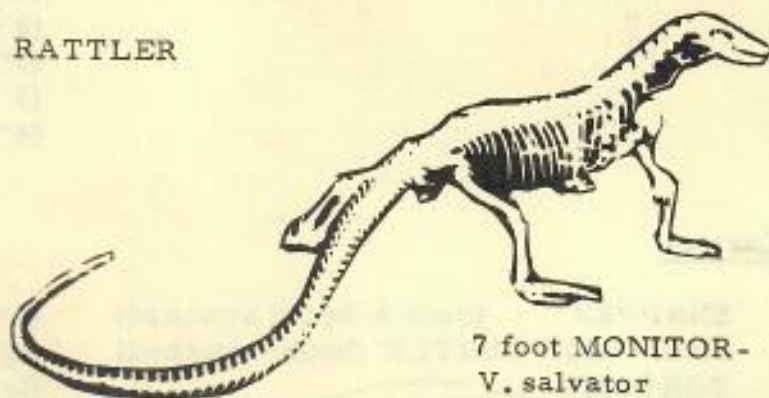
Rattlers & vipers are in striking position .

Also available for comparative studies are sets of comparatively sized skulls .  
For example: Set of Turtle, frog, snake, lizard & crocodilian.

- : " " Boa and python.
- : " " Viper and Rattler.
- : " " Agama & Iguana.
- Etc.



RATTLER

7 foot MONITOR-  
V. salvatorSKELETONSLizards

1	WATER MONITOR-Varanus salvator	(7 feet)	\$ 350 ea.
1	"	(3 feet)	150
1	"	(4 feet)	175
1	"	(5 feet)	250
1	DUMERIL'S MONITOR-V. dumerili	(4 feet)	175
1	BENGAL MONITOR-V. bengalensis (in defense position, on hind legs)	(2 feet)	100
1	ROUGH-NECK MONITOR- V. rudicollis (dried skin left on feet and part of tail)	(2 feet)	65
1	GILA MONSTER-Heloderma	(adult)	125
1	JACKSON CHAMELEON-Chamaeleo jacksoni (adult female, posed on branch)		45
1	JACKSON CHAMELEON-C. jacksoni (adult male, with horns, posed on branch)		65

SKELTONS (cont'd)Snakes

1	SEA SNAKE	(3-4 feet)	\$ 75	ea.
1	CORAL SNAKE-Micrurus	(adult)	75	
1	MOUNTAIN KING SNAKE-Lampropeltis	(adult)	50	
1	BANDED KRAIT-Bungarus (skull and complete vertebrae, on branch, in striking position)	(3-4)	50	
1	HOG-NOSE SNAKE-Heterodon (skull and half of body, with ribs in place. In defence position, mouth open and hood extended. On wood base. Note: has enlarged rear teeth.		65	
1	RATTLESNAKE-Crotalus (in striking position. See illustration on page 4.)	(3-4 feet)	75	
1	VIPER-Viperi (on ground, in motion)	(18")	50	
1	" (in striking position)	(3 feet)	60	

Amphibians

1	FROG	(5 1/2" snout to vent)	50
1	BLOMBERGS TOAD-Bufo blombergi	(7" snout to vent; 15" overall length)	75

We have many other skeletons in preparation and many more that constantly become available. If you don't find what you want, please ask.

We have a constant source of specimens from museums, zoos, universities and importers. Please inquire about specific types that do not appear here. Most can be obtained and prepared within a reasonable amount of time. We can also prepare specimens that you may have. We neither solicit nor accept live animals for the purpose of skeletal preparation.

SKINS

Skins are available from practically all the specimens listed under Skulls and Skeletons, including large skins of the pythons, boas, anacondas, indigos and rattlers, as well as many others. Please ask about type wanted and a quote will be given on those available or soon available.

Specific orders can be taken to supply skin and skull or skeleton from the same specimen to assure identification. Skin can be supplied either dried or tanned. Tanned skins average \$10 to \$30 with the exception of the very large types. Due to the variable quality, all skins purchased tanned can be returned within 10 days for refund or exchange.

(cont'd)

DISPLAY CASES

Glass Domes for rattlers & small skulls .....\$.4 ea.  
 Finished redwood cases with sliding glass doors:  
   3" deep x 7" high x 14" wide (holds 6 skulls).....20  
   3" " x14" " x 14" " (holds 12 skulls).....25

TERMS

Add \$2 to all orders to be mailed (except skins) to cover shipping & handling.

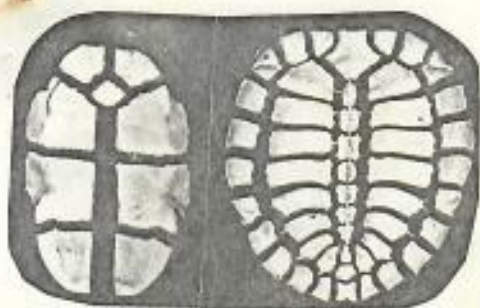
10% Discount on orders of \$75 or over.  
 20% Discount on orders of \$150 or over.

Prices are FOB North Hollywood, California. NOTE: California residents please add 6% sales tax. All orders are sent C.O.D. (charges included) unless payment is received in advance.

All skulls & skeletons are double packed in styrofoam beads to prevent damage. Instructions for opening packages will be sent in advance with confirmation of order.

When possible, species identification will be on request for an additional charge of 10% of order. Charge not applied when species appears on pricelist.

DAVID KRONEN, winter 1976



*Herp Osteo-Specimens*

11324 Ventura Blvd.

No. Hollywood, CA. 91604-

PRICELIST SUPPLEMENT

July, 1976

TURTLES

SKULLS

SNAPPER- <i>Chelydra serpentina</i> (with hyoid)	\$ 30
BARBOURS- <i>Graptemys barbouri</i> (very large)	45
FLORIDA SOFTSHELL- <i>Trionyx spiniferus</i>	30
BLANDINGS- <i>Emydoidea blandingi</i>	25
LEOPARD- <i>Testudo pardalis</i>	15 & \$ 25
MALAYAN SOFTSHELL- S	20
HINGEBACK- <i>Kinixys belliana</i>	15
SNAKE-NECK- <i>Emydura macquari</i>	15
PANCAKE- <i>Malacocherus tornieri</i>	15
INDIAN SOFTSHELL- <i>Chitra indica</i>	15
INDIAN STAR- <i>Testudo elegans</i>	15
RADIATED- <i>Testudo radiata</i>	15
LOGGERHEAD MUSK- <i>Sternotherus minor</i> (with hyoid) & neck attached, on stand)(very large)	45
STINKPOT- <i>Sternotherus odoratus</i>	30
ORNATE DIAMONDBACK- <i>Malaclemys terrapin</i>	15 & \$ 20
RED-EARED- <i>Pseudemys scripta</i>	15
MATA MATA- <i>Chelus fimbriata</i> (with neck and hyoid attached)	55
<u>ASSEMBLED HEAD, NECK &amp; SHELL (with scales)</u>	
ORNATE DIAMONDBACK- <i>Malaclemys terrapin</i>	\$ 45
MATA MATA- <i>Chelus fimbriata</i> (with hyoid)	90

MISC.

Disarticulated shell (mounted on board) SEE PICTURE	\$ 35
Assembled shell (without scales) (ideal for comparison with above)	25

*Herp Osteo-Specimens*

11324 Ventura Blvd.

No. Hollywood, CA. 91604

PRICELIST SUPPLEMENT

June, 1976

VARANID SKULLS

Sold as a complete set only

	<u>size</u>	<u>price used to determine total</u>
V. flavescens	60 mm	\$ 40
V. niloticus (pointed teeth)	56	30
" (rounded teeth)	82	80
V. gresius	42	40
V. bengalensis	55	25
V. prasinus	46	50
V. indicus	65	45
V. dumeril	75	35
V. karlschmidti	70	65
V. salvator nuchallis	85	65
V. salvator salvator	70	35
V. exanthematicus (rounded teeth)	70	70
V. exanthematicus (pointed teeth)	40	25
V. rudicollis (very large)	103	80
V.		\$ 685
less 20% discount		137
		<u>\$ 548</u>
		TOTAL

Note: The purchaser of the set will be offered first choice at purchasing any additional species obtained.





## Turtle Watching

Summertime is giant turtle time along Florida's miles of beaches. This is the season when females come ashore at night to dig their nests in the dunes above the tide line and lay hundreds of rubbery eggs, which are incubated by the sun.

The turtles and eggs are protected by Florida law, but turtle watching is legal and an interesting way to spend a summer evening.

Though the turtles will turn back to the water if disturbed on their journey up the beach, they are apparent-

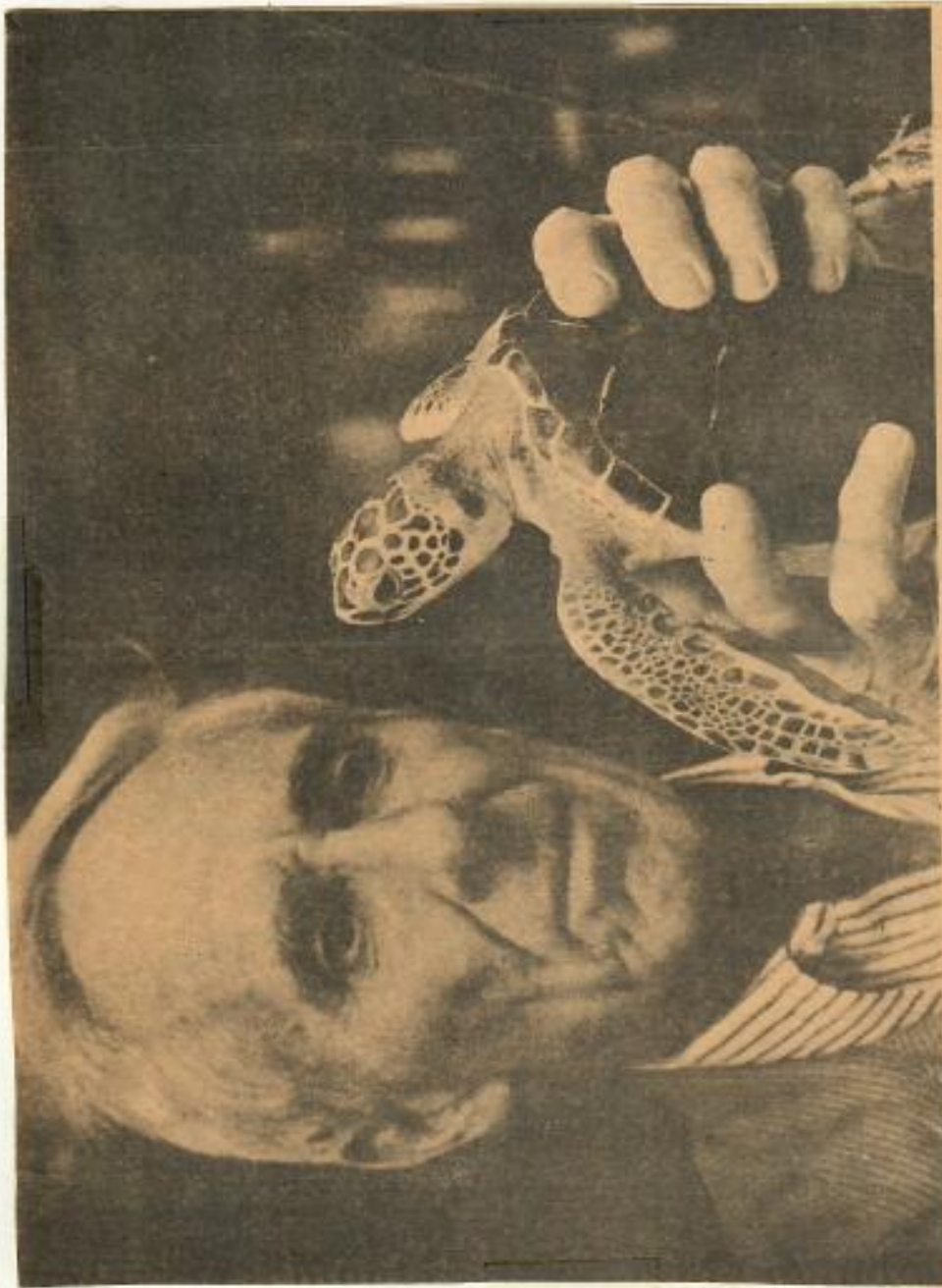
ly unconcerned once laying begins and can be closely approached and observed. Long, lonely stretches of beach, especially on the Atlantic coast of the Sunshine State, are the best places to look for these huge sea creatures.



**DISCOVER**  
the phenomena of  
**PALM BEACH**



with skin diver  
on sale September 27



Pointville Soc. Dec. 33-04.

### International Honors

"Mr. Turtle", University of Florida biologist Archie F. Carr, this fall, received international honors in recognition of his scientific studies and practical conservation of endangered species such as the Florida green turtle he is holding. Best known for his

knowledge of marine turtles and his efforts to save them from extinction, especially in the Caribbean, Dr. Carr recently surveyed a turtle farming project for the Australian government.

1961  
Carr

Green turtle reproduces

For the 1st time the green turtle has begun breeding in captivity and on a quite spectacular scale too. This breakthrough seems to guarantee the continued survival of the turtle which is now an endangered species and insures a supply of delectable turtle meat.

Mariculture Ltd Grand  
Cayman Island, British  
West Indies.

George + Linda,  
Thanks so  
much for the lantern.  
We love it.  
David.

---

I have in  
"Cass" Magazine.

GREEN TURTLE

Chelonia mydas (Linnaeus)

Order: CHELONIA

Family: CHELONIIDAE

Distinguishing characteristics: Abutting, non-overlapping shields on carapace; four pairs of lateral shields in shell; one pair of prefrontals on head; very large size; paddlelike feet.

Present distribution: Tropical oceans. Wanders up United States coasts during summer. Throughout Hawaiian archipelago.

Former distribution: Same; but once used Florida beaches as nesting sites.

Status: Practically extirpated as a breeding entity in the fauna of the mainland U.S. Still common as a breeding entity on Hawaiian Islands National Wildlife Refuge. Regarded as a "depleted" species in IUCN Red Data Book, Vol. 3, 1968.

Estimated numbers: In waters off mainland U.S., probably very few. Common in Hawaiian Islands. World-wide, still fairly common in some areas, but seriously decimated in others where they were once abundant.

Breeding rate in the wild: Reaches breeding age about sixth year. Probably nests once every three years. Average 100 eggs per female. May have several successive nests in one year.

Reasons for decline: Both animal and eggs widely used for food; eggs and young subject to very heavy predation. Subject to intense harvesting pressure in some parts of world. Overutilization in others. Now also being taken in Hawaii for its shell as trophy or curio item for tourists.

Protective measures already taken: Molestation of nesting sea turtles and their eggs is prohibited in South Carolina, Georgia, Florida, Texas, Puerto Rico, and Hawaii. Hatchlings are flown from Caribbean beaches to Florida for release. Similar release techniques are employed in Buck Island Reef National Monument, Virgin Islands, and Virgin Islands National Park. Results in the form of return of released hatchlings not verified as yet. Protected by law, closed seasons, limited harvests, restricted licenses, and other means in many parts of its range. Entry to Hawaiian Islands National Wildlife Refuge by permit only. Life history and ecological research by refuge personnel in progress. Cooperative University of Hawaii and U.S. Bureau of Sport Fisheries & Wildlife experimental rearing project in progress at University of Hawaii.

Measures proposed: Continued research and protection. Better enforcement of existing regulations; Extension of laws to areas not currently covered. Closure of waters at Northwestern Hawaiian Islands to turtle taking. Need research, including actual harvests, in main Hawaiian Islands. Close surveillance of fishing activities in future as such activities may increase around French Frigate Shoals.

Number in captivity: Practically every saltwater aquarium and a few zoos have them, often as many as 5 to 10.

R. D. PAYNE  
113 Repulse Bay  
CC-4 Hong Kong

## Turtle 'Farming' Studied

By BOB BARR

HONOLULU (AP) — The sea is a potential source of nourishment for the world's hungry millions, but a University of Hawaii marine biologist is working to please the palates of gourmets, too.

George Balazs of the Hawaii Institute of Marine Biology is studying 130 green sea turtle hatchlings, to find out what the tasty turtles eat and how long it takes them to grow to platter size.

"Initially, we would only be able to supply turtles for the gourmet market," Balazs said, "but later on it may have a potential for the mass market."

The green sea turtle is prized for its veal-like flesh, its calipee — cartilage — that produces the sticky texture demanded of the best turtle soup and its flippers, which make stew.

Turtle steak sells for \$2 a pound on the West Coast, and calipee will fetch twice that price, Balazs said.

### Grow to 150 Pounds

Balazs is feeding the two-inch-long hatchlings varying diets of vegetable matter to determine the optimum amounts of protein and calories. One group gets a meat diet.

The one-ounce hatchlings must grow to about 150 pounds before they're ready for market, and Balazs said 80 per cent of a mature turtle is marketable, including the shell and the leather from the neck and flippers.

Before turtle farming becomes a reality, the turtles must prove they will breed on artificial beaches. And Balazs' initial experiments have not been encouraging.

Three nests of turtle eggs were transplanted from the French Frigate Shoals, in the western part of the Hawaiian island chain, to a small island near Honolulu. Two nests were not fertile, and only eight turtles hatched from the 76 fertile eggs.

In the wild, about half the eggs normally hatch, Balazs said.

Balazs said the five days moving time from the shoals to Honolulu may have arrested the development of the eggs. So he plans to bring more eggs to Honolulu with the moving time cut to one day.

### "Save the Turtles" Kit

Send in now for your own "Save the Turtles" Kit and receive:

- "SAVE THE TURTLES" Jersey (white, long-sleeved, 100% cotton, Hanes® Beefy-T® Jersey) with orange logo and turtle stripe down sleeve. Comparable retail value \$15.00.
- Coupon for 50¢ off your next box of DeMet's Turtles®
- Sea turtle information sheet



\$9.75 with the purchase of 1 box of DeMet's Turtles.

\$7.75 " 4 boxes "

\$4.75 " 8 boxes "

To order the "Save the Turtles" Kit fill in the information below and make check or money order payable to "Save the Turtles" Kit. For proof of purchase, send in the UPC Code from this or any other box to: SAVE THE TURTLES KIT, P.O. BOX 4107, Monticello, Minnesota 55365-4707.

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GOOD WHILE SUPPLY LASTS. ALLOW 30-90 DAYS FOR HANDLING AND SHIPMENT.  
VOID WHERE PROHIBITED, TAXED, OR RESTRICTED.

8T11

# SAVE THE TURTLES



*Research Funded By DeMet's Turtles® Candy*

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Thank you for buying DeMet's Turtles.<sup>®</sup> Whenever you support DeMet's, you make it possible for us to support the "Save the Turtles" Fund.

Sea turtles have been around for nearly 100 million years—since before the dinosaur.

They're not only one of the oldest living creatures, they're one of the largest. From flipper to flipper, the Leatherback Turtle can grow to be as wide as a mid-size car, with a weight of more than 1,000 lbs.

Sea turtles are air-breathing animals that spend almost all of their lives at sea. The only time they leave the water is when females emerge to lay their eggs on the beach.

The eggs incubate under the sand for almost two months. When the hatchling turtles emerge from their shells, they scurry back to the sea.

Unfortunately, most hatchlings do not live to maturity. Today, the Green, Loggerhead, Hawksbill, Atlantic Ridley, Pacific Ridley and Leatherback sea turtles are all endangered. Their high mortality rate is due to natural and man-made causes.

Turtle nests often fall prey to scavengers, especially the raccoon. Hatchlings are also subject to heavy predation once they enter the sea. As adults they are often attacked by sharks and whales.

Pollution and the loss of nesting areas to development are also hazards contributing to the decline of the sea turtle population.

---

Rowntree DeMet's has established a "Save the Turtles" Fund which supports research to increase the number of sea turtles.

Many of these research programs collect sea turtle eggs from beachfront nesting sites and protect them until they've hatched, and the hatchlings have grown large enough to survive on their own.

Through efforts like this, and with all of us working together, the sea turtle can go on living for the next 100 million years.

If you'd like to make a donation to this worthwhile cause, send a check or money order payable to:

**CLEARWATER MARINE SCIENCE CENTER**

Attn: David Everett  
249 Windward Passage  
Clearwater, FL 34630

**SCRIPPS INSTITUTE OF OCEANOGRAPHY**

Attn: Dr. Gerald Kooyman  
Mail Code #A004  
University of California, San Diego  
La Jolla, CA 92093

**SEA TURTLE RESCUE FUND**

Attn: Mary Dele Donnelly  
Center for Environmental Education  
1725 De Sales Street, NW  
Washington, D.C. 20036

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# Green turtle under guard

By PEG ROBINSON  
Christian Science  
Monitor News Service

MIAMI, Fla. — Floridians are concerned for the green turtle, the food staple that helped open up the Caribbean.

With worldwide interest in turtle products growing, plunderers slaughtered the species close to extinction in Florida and in countries all along the Caribbean.

So besides the Florida Department of Natural Resources, which looks after the amphibian officially for the state, there is a nonprofit conservation effort alive in the area — the Caribbean Conservation Corporation (CCC).

Now headquartered in Tallahassee, CCC started in 1960 at Miss Bessie's Restaurant in Cedar Key, Fla., as a quasi-social brotherhood. And since its small beginning, the organization has obtained control of five good miles of turtle nesting beach in Costa Rica, with the creation of a small national park there.

It also has turtles close to breeding age in Union Creek on Great Inagua Island. The CCC hopes to get these to propagate in captivity and become a self-generating colony.

The CCC has sponsored many studies investigating the life history and guidance systems of the green turtle. In an effort to learn what happens to the hatchlings in their first year, for instance, CCC workers used drift bottles to check directions and strengths of currents off the Tortuguero beaches, the

turtles' Costa Rica habitat.

Sargasso rafts were surveyed to see if there is some link between this floating vegetation and the baby turtles' disappearance. More than 6,000 turtles were tagged within the period, with 183 returns from the Tortuguero project alone.

Governmental facilities, too, have been made available to CCC programs, NASA has furnished a Nimbus B satellite to track turtles in migration from the Brazilian coast to Ascension Island. Also, for seven years straight U.S. Navy ships and helicopters distributed more than 175,000 hatchlings and eggs to 26 sites ranging from Florida to Venezuela.

Hatchling beaches supplied by the CCC included some on Avis Island and Bermuda.

The Caribbean Conservation Corporation has earned the aid of the International Union of Conservation of Nature and Natural Resources and of the World Wildlife Fund. And it is operated by unpaid volunteers.

Membership dues, annual pledges, gifts, and grants fund the totally nonprofit effort, which — although started by Americans — embraces other nationalities as well, and is favorably known in scores of governments on all six continents of the world.

Books have been written about the plight of turtles, including "The Windward Road," which sparked the Brotherhood of the Green Turtle, from which the CCC sprang. The author, Dr. Archie Carr, is technical director of

George Balazs

Monday, Dec. 3, 1973

The COLUMBIAN

25



A 'protector' watches a giant sea turtle laying her eggs.

the conservation corporation. He is also a graduate research professor of the Department of Zoology at the University of Florida.

The CCC's efforts have had their share of attention, too. A film which shows the cor-

poration's land and animals is National Geographic's "The Reptiles"; and as a TV production, Mutual of Omaha filmed CCC's Tortuguero activities for its program "Wild Kingdom."

By every means available,

the organization has furthered studies and publicized the plight of all five kinds of sea turtles, and it intends to continue until sea turtles have been restored to a point where they are no longer in danger of extinction.

... a series of coordina- I

WITING

LIBRARY OF  
GEORGE H. BALAZS

SUN A-5B

Nov 11, 73

**a whale of a  
turtle catch**

*Agence France-Presse*

**TANANARIVE, Malaga-  
sy** — A giant turtle with  
vital statistics of about  
7 feet by 5 feet has been  
fished out of the sea off the  
northwest Malagasy coast,  
the Daily Madagascar Ma-  
tin reported.



AP photo

**Aquarist Pat Foster of the Miami Seaquarium contrasts a rare albino green sea turtle, perhaps the first ever seen in captivity, with a normal turtle of the same genus.**

## Miami Aquarium Project Receives Albino Turtle

MIAMI, Fla. (AP)—Caretakers at the Miami Seaquarium are hand-feeding an infant albino green sea turtle that may be the only one of its kind ever seen in captivity.

Ross Witham, director of the Florida Natural Resources Department research laboratory at Hutchinson Island 100 miles north of Miami, sent the two-week-old, four-inch long oddity to the Seaquarium, which is participating in a project to bring the green turtle back

from the edge of extinction.

Witham said the little creature was the first true albino he had seen in 20 years of working with the animals, and he added that it must be protected from the sun because it lacks the normal greenish-brown coloration of its species.

If it lives, the turtle will mature into an ocean-going giant five feet long and weighing more than 300 pounds.



## Slow White

As any soup-lover can see, this is not your ordinary, mouth-watering green sea turtle. This fellow is a rare albino, and may be the only one of its kind ever seen in captivity — or on the shoulder of Pat Foster, an aquarist at the Miami

—Herald Staff Photo by GEORGE KOCHANISZ

Seaquarium. The four-inch turtle was hatched at a Florida Natural Resources Department research lab Oct. 14 and was sent to the Seaquarium, where scientists are working to keep its green brothers from extinction. If it lives, it will become an ocean-going 300-pounder.

Oct 14, 1973

S-D-ADJER

Sunday

# pity the poor sea turtles

By NINA S. HYDE

Washington Post Service

WASHINGTON — Tortoiseshell may have won the fashion accessories popularity race this season, but it is fast losing the battle with conservationists who want it taken off the shelves.

Not all tortoiseshell comes from the Hawksbill or other sea turtles on the endangered species list, which makes the importing, manufacture and sale of products from these reptiles illegal. But conservationists, such as Robert Boardman, public information director for the national Audubon Society, are urging that all sales of real tortoise items be stopped since most sea turtles are approaching the endangered list status.

"BESIDES," Boardman said, "it is difficult to tell, once the tortoiseshell has been used in jewelry, if the source is the Hawksbill, which is on the list, or one of the others not on the list."

The Hawksbill tortoise and several other species have been on the endangered list since December, 1970. But the campaign

against the use and sale of tortoiseshell jewelry only revved up this May. At that time Bonwit Teller advertised "a rare collection of tortoise jewelry." Several days later, Cartier, the prestige jewelry store, advertised several pieces of gold and tortoise designs by Aldo Cipullo at \$185 to \$375.

"At that price, an impoverished native is going to trap tortoises, regardless of the legality," Boardman said. "It virtually guarantees their extinction."

ONCE THE Audubon Society advised Bonwit Teller and Cartier of the potential illegality of the tortoiseshell, the firm immediately withdrew the items from sale.

In a survey of Washington stores, buyers expressed surprise that certain kinds of tortoiseshell are illegal. All agreed that they would investigate the source of the items they now have in stock at once.

Garfinckel's department store immediately consulted experts at the Smithsonian Institution for identification of their tortoise jewelry. A spokesman for Lord and Taylor said the

store would take no additional delivery on tortoise items and would remove from sale all those made from tortoises on the endangered list.

ROBERT RAYMOND, Woodward and Lothrop jewelry buyer, said he first became aware of the situation when United States customs agents impounded a package containing cameos and tortoise jewelry from Italy.

According to Marshall Stennett, assistant special agent in charge of international investigation at the Interior Department, products made from the Hawksbill turtle are being confiscated by agents at all United States ports of entry.

The Hawksbill is popular for jewelry because of its unusual markings and because it can be polished to a high gloss.

National Fisherman  
54(6): 19-A  
Oct. 1973.

LIBRARY OF  
GEORGE H. BALAZS

## EGGS TRANSPLANTED

# Hopes Fading For Second Coming Of Ridley Turtles On Padre Island

By Jack Baughman

**NORTH PADRE ISLAND, TEX.** — Dearn Adams has abandoned his turtle project for this year. However, next year, the Ridley turtles may come back to Padre Island to lay their eggs.

"We've left our camp on the island," he said, "but there are still some people out there making occasional checks for us, just in case the turtles do show up." But it looks like his dream of raising turtles on Padre once again has gone up in smoke. The island, he says, has changed so much since the turtles once laid there years ago that he does not have much confidence that the chelonians will ever return.

There is now too much traffic, especially on weekends. "We haven't given up yet, but we've become awfully discouraged. My personal opinion now is that it's not going to work. The traffic on the beach is much worse than it was six years ago."

That's when Adams planted eggs from the Mexican coast on the shores of Padre, hoping that if they hatched, the little turtles, when adults, would return to lay their eggs where they were hatched.

"I didn't know how fast the island was going to grow," he said. "It's just grown by leaps and bounds. But I still want to keep looking until I'm sure they're not coming back."

Adams has been waiting for the return of the turtles hatched from the eggs he obtained six years ago, and he believed this might be the year they would return as adults to establish a colony of the endangered turtles here.

The Adams family first came to the beach in 1963, the first year that Dearn and others attempted to transplant Ridley turtles from a declining colony near Tampico, Mexico. Despite

laborious efforts to protect them, no eggs hatched in 1963, and only a small number of Ridleys survived successive transplant efforts in 1964, 65 and 66.

But in 1967, 1,102 turtles hatched from 2,000 eggs and scuttled across the beach into the surf.

"Nobody knows for sure how old they have to be before they return to lay eggs," Adams said. "Estimates have been from five to eight years. I personally believe from six to eight years."

Adams made camp this year on April 28 with his wife and son. Each morning, he drove his son to school and then went to work himself, leaving his wife, Ethel, to watch. He and the boy would return a little after 4 p.m.

### ABANDONED CAMP

However, after nearly two months on the beach, they finally abandoned their camp, but during the time they were there Adams or his wife, sometimes accompanied by others, patrolled a 29-mile stretch of beach looking for turtle tracks.

In theory, the Ridleys will return to where they were hatched, although no one is certain of that. Nobody knows much about them, Adams said.

Some research has been carried out at colonies along the Caribbean coast of Mexico, although the nearest colony — about 50 miles north of Tampico — is down to about 400 to 500 adults.

It has been learned that male Ridleys never return to land, but spend their lives at sea. The females return only to lay eggs.

Once females mature, they may lay eggs as often as three times during a season, which extends from May through August. "Most should arrive in a bunch in May," Adams said, "and

the others would be scattered thereafter."

He said it has also been learned that some adults lay every year; others, only every two years. Each turtle lays about 100 eggs at a time.

None of the adults — which may weigh as much as 90 lbs. have been sighted by the Adams family — although several years back, biologists working for the Texas Parks and Wildlife Dept. caught a few in shrimp trawls. None of these were Adams' turtles.

However, the Adams family saw true Ridleys twice this year. A man named Don Peatch, who has helped the Adams look for Ridleys, found a yearling tangled up in a piece of rope. About "the size of a dinner plate," the Ridley was taken care of by Mrs. Ila Loetheer, an inslander with a long-standing interest in the project.

### MYSTERY TURTLE

The source of that turtle is a mystery. Adams said it was remotely possible that one of the pre-1967 transplant survivors came to the beach last year, and this was one of her young. The youngster apparently became entangled in the rope at sea, and was washed ashore. Another Ridley, this one four years old, was caught by a fisherman.

As for Adams plans, he said he will return the next two summers, but after that, he'll probably have to give up.

Asked what was keeping him going, Adams said, "We have got something started, and we just don't want to turn it loose. We want to see it through to the bitter end, or happy end, whichever it is."





A turtle, which an oceanographer estimates probably weighed 1000 pounds when alive, washed ashore at Watch Hill, R.I., yesterday. Sam Piccolo looks over

eight-foot monster which must have been three times his age. (AP)



# Young Lawyers Stir

By Robert Trumbull

(C) N.Y. Times Service

CHALAN KANOA, Saipan — A controversial government-financed team of scrappy young American lawyers in the far flung islands and atolls of Micronesia has incurred the ire of the United States administration there.

The youthful attorneys—their average age is 30 years—have consistently fought government policies that they consider

harmful to the interests of the 100,000 or so Micronesians. Many of the more than 2,000 cases undertaken by them involve conflicts between ancient island customs and modern western ways.

But members of the group, the Micronesia Legal Services Corporation, have been accused of abetting a growing independence movement in the strategically located Micronesian archipelago, a United Nations trust territory under American control.

"THEY CONSISTENTLY project an image of hostility to the United States in Micronesia," a senior American official said of the group recently.

The organization's activities have so grated upon the American High Commissioner of the trust territory, Edward E. Johnston, that he twice tried to curtail the program. The appeals to Washington by Johnston, a 55-year-old former Honolulu insurance executive and Republican party official, for a drastic cutback in the group's funding were turned down.

The two-year-old legal project has a subsidy of \$600,000 a year from the Office of Economic Opportunity.

Meanwhile, the group's triumphs in court have included a successful suit against the U.S. Air Force that led to the abandon-

ment of a plan to test the effects of high explosives on the fragile coral formations of Eniwetok atoll in the Marshall Islands, a site already ravaged by more than 30 nuclear blasts.

"Micronesians tend to have unusual legal problems," said Theodore R. Mitchell, the 37-year-old executive director and oldest member of the group, in an interview.

THE TEAM represented the 400 or so people of isolated Satawal Atoll, in the Eastern Caroline Islands, when a heavy leakage of oil from a ship grounded on the reef off tiny, uninhabited West Fayu, an atoll 80 miles away, menaced one of the few known nesting places of the green sea turtle.

The turtles are the main source of protein for the Satawal residents, who travel to West Fayu in outrigger canoes to capture the huge creatures alive during the egg-laying season and haul them home for slaughtering as needed. After six months of insistent pressure by the young lawyers and the Trust Ter-

ritory government on the same side for once, the U.S. Coast Guard acted to have the escaping oil brought under control.

Edward C. King, of Detroit, the deputy director of the legal program, has brought a suit on behalf of indignant Saipanese against Continental Air Lines to halt the construction of a tourist hotel on a public beach. The beach is a traditional site of Saipanese funeral observances, King says, besides being a popular recreational area unsullied by commercialism till now.

The 15 Americans in the program, with 35 Micronesian assistants, are divided among the six districts of the Trust Territory. The Truk district is served by a

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HACKSTAND

# Up Micronesia

husband and wife team, Daniel and Sionag MacMeekin from California.

OF THE 14 directors, 11 are Micronesians and only three are Americans, said Mitchell, a Harvard Law School graduate from Phoenix. The salaries of the American attorneys, who receive no fees, range from \$11,000 to \$25,800, he said.

A proposal to make the islands a self-governing dependency of the United States, with the right to separate after a period of time, is under discussion between a committee of Micronesian legislators and a group of American officials headed by Ambassador Franklin Hayden Williams, President Nix-

on's personal representative in the talks.

The United States took the islands from Japan in World War II in fierce fighting. Earlier, they had belonged to Spain and Germany, who also lost them through defeats in war.

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# Rare turtles returning to Malaysia

By BRIAN GOMEZ

RANTAU ABANG, Malaysia

—(AP)—The giant leatherhead turtles, long threatened with extinction, are back again. The 1,500-pound reptiles slowly flap their way up select

Malaysian beaches to lay their eggs from May to September.

Even before the poor turtle, jelly-like tears dropping from its eyes, can bury its 80 to 140 eggs under the sandy beaches, the eggs are pouged

out by specially assigned collectors.

Zoologists believe the turtles were wandering the high seas long before the appearance of man.

About 5,000 make the annual journey up an eight-mile stretch of beach facing the South China Sea and wildlife experts have long feared they were a doomed species.

**BUT THIS YEAR** government wardens, who have eight years' experience at tagging the turtles' flippers, are out on the beaches with a tape in hand. Their task is to measure all incoming turtles to check on reports that smaller giants are coming ashore.

According to one official this can only mean that efforts initiated by the Malaysian government in 1965 to ensure that

the giant turtle does not become extinct are proving a success.

Local conservationists are thrilled that a new generation of giant turtles may be coming ashore for the first time.

So far only a small trek of tourists have hit the sprawling beaches of the east coast of the Malay Peninsula to watch for the turtles, which come ashore at night. Three smaller varieties, including the green turtle which the Chinese and Japanese follow in their soup, come ashore in adjacent areas.

**SOMETIMES** a wait from dusk to dawn can prove fruitless. Other times a dozen mother turtles may come ashore within a short interval.

Tourists are admonished against shining their flash-

lights indiscriminately and are asked to wait in a nearby hut so the turtles will not be driven away.

The huge turtle crawls up the beach, stopping every few paces for a breather. Once it settles on a spot, its huge flippers immediately dig a hole about two and a half feet deep. Within two hours the creature lays some 100-odd eggs, tears dripping to protect its eyes against the unaccustomed atmosphere.

Then the Malay moves in to scoop up the eggs. Meantime, the turtle busily tries to hide the spot where the eggs are. Government researchers have been able to collate very little information about the creature since tagging began. In the last eight years, 6,772 were tagged.

**"WE MUST TAG** as many as possible and hope that people are kind enough to tell us if they are spotted or caught," the official said, adding that the turtle's migration could be better charted if more funds were available.

The official said the government-run hatchery was set up with a three-fold purpose — conservation, tourism

and revenue. An area is being developed along a half-mile stretch near the hatchery where tourists can stay and not come into conflict with persons collecting the eggs as a livelihood.

"At the hatchery the tourists can even see newborn turtles crawling up from under the ground, a most fascinating sight," he said.

The eggs at the hatchery have a 80 percent survival rate, probably somewhat better than the natural habitat, where dogs and man can assure speedy extinction.

**THE HATCHERY** last year purchased 80,000 turtle eggs — it will go up this year to 100,000, about 12 percent of the total laid. By farming out egg collection rights the Trengganu state government earns about \$40,000 annually. The total egg sales fetch four times as much.

The egg can never be hurried by boiling but that has not deterred it from being considered a delicacy.

"It is most fortunate the Malays will not kill turtles since they believe this will bring bad luck," the official says.



**DON'T SCRAMBLE THEM** — Turtles weighing nearly a ton crawl up on Malaysian beaches from the South China Sea to lay more than 100 eggs at a time. Here a government warden takes some for scientific study.



# Ackerman research on turtle eggs deals with effects of environment

By SUSAN SPINGLER  
Alligator Staff Writer

How many questions can man answer about sea turtles and their environment?

Not many, according to Ralph Ackerman, who is working toward a Ph.D. in zoology at UF.

"Nothing is really known about turtle eggs," says Ackerman, a 28-year-old Pennsylvania native.

**FOR HIM, THE** answers to these questions are burning ones. He is researching the effect of the environment on the physiology of turtles, particularly the respiration of turtle eggs. Not only will this enable him to complete his doctorate, it will aid conservationists' attempts to preserve the dying animal and will satisfy his personal curiosity.

Ackerman's interest in zoology and the turtle began at Rutgers where he earned a degree in zoology. He did a year of undergraduate work at Duke University and is now at UF to work with biologist Dr. Archie Carr, chairman of the marine turtle group in the international Survival Service Commission.

Carr hired Ackerman last summer to aid him with the annual supervision of the Turtle Bogue hatchery project for which turtles are raised for research and transplanting to beaches in the Caribbean in an effort to replenish the green turtle population.

**THIS SUMMER,** Ackerman will attend scientific meetings in San Juan, Puerto Rico. Then he will go to Tortuguero, Costa Rica to study the giant turtles which will be nesting there.

His past work includes a study of eggs from Ascension Island to determine the effect of different amounts of carbon dioxide and oxygen on the amount of hemoglobin in the blood of the turtle egg in fetal form and after birth.

He tested eggs from Ascension Island by putting one group in the coarse white sand found there and the other in fine black sand from Tortuguero.

The results showed that it took the group in the black sand two weeks longer to attain the same amount of growth as those eggs in the white sand. He plans to try a similar experiment on eggs he will take from Tortuguero this summer.

**ACKERMAN SAID** he believes that his work will be an important contribution to the conservationists' studies of the turtle and of man's world and how it works. He said he hopes to provide information which will aid in efforts to protect the endangered species of the turtle.

His study of why a turtle selects a particular beach for its eggs may provide information which will enable conservationists to determine which beaches will be suitable for the turtle to lay eggs.

Ackerman plans to teach and conduct research, which he considers inextricably mixed. After completing research of turtle eggs he sees possibilities for studies of different types of eggs, such as certain birds' eggs which have not been studied.

**BESIDES** his interest in environmental studies, Ackerman has found time to serve in the Army. He describes himself as "a bit of an athlete" and plays rugby at UF.

Combining his interest in sports with his interest in ecology, Ackerman said he enjoys camping and canoeing "at springs and rivers that are biologically interesting."



Ralph Ackerman  
... attempts to preserve endangered species

it's

TURTLE-WATCH

SEASON

*Watching a turtle dig her nest and lay her eggs can be a rewarding experience — if you can find a turtle. Jensen Beach's organized turtle watches take some of the guesswork out of this annual Florida pastime.*



*FLASHLIGHTS AND NOISE don't faze a mother turtle once she has started laying. With her flippers, she digs a hole about two feet deep in the white sand.*

SECTION C

The Miami Herald

Friday, June 22, 1973

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By **JERRY BOWERS**

Herald Staff Bureau

**JENSEN BEACH** — It's turtle nesting time again on Hutchinson Island here, and light time beach walkers are likely to stumble across a mother turtle laying her eggs.

From June through the middle of August, hundreds of mother turtles ranging in size from 250 pounds to a ton will visit the beach to plant their eggs in the warm sand which will incubate them until the young hatch, even weeks later.

Some tourists have found the egg-laying process fascinating, and the Jensen Beach Chamber of Commerce has scheduled two organized turtle watches this month, one Saturday and the other June 30, at 9 p.m. at the Jensen Bathing Beach.

The organized watches take some of the lappenance out of turtle watching.

**DURING** these watches, law officers keep the beach under surveillance for nesting turtles, and when they spot one they alert the

prospective watchers waiting at the bathing beach, and everyone goes to the laying scene for a first-hand look.

Noise and flashlights do not make a mother turtle move, once she has started laying, but noise and lights on the beach will disturb her and drive her back into the water if she has not yet made her nest.

Turtles lay eggs ranging in size from ping pong balls to tennis balls. Before they lay them, they dig a hole about two feet deep, which serves as a nest.

**THE JENSEN** chamber distributes a description of turtle nesting by Ray Lorenz, one of the early boosters of turtle watching who has since moved out the area.

Lorenz notes that the turtle's activity building the nest takes from 15 to 25 minutes, and then she starts to lay her eggs, "the first few eggs one at a time, then they come in twos or three."

"Just before each batch is laid, she curls

*Turn to 4C*



# Turtle Weeps Spoon-Size Tears

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Continued From 1C

up her rear flippers, raises her head and exhales a mournful sigh.

"And, believe it or not, she starts crying upon laying, and cries tears as big as a teaspoon all the way through the laying time, about 30 minutes," he observed.

"SHE LOOKS neither right nor left while laying, and is entirely oblivious to flashlights or flashbulbs," he noted.

But "do not put your hand in front of her mouth as she will take off the hand with one bite, and you will draw back a bloody stub," he warned.

After laying her eggs, the turtle covers them with sand and camouflages the nest with sweeping motions of her flippers. Then she returns to the sea.

THE NESTS are protected by law from poachers, and Marine Patrol officers enforce the law vigorously. Martin County traps are

Hot weather and frequent storms have slowed the start of the egg-laying season along Brevard County's 80-mile coastline, according to Florida Marine Patrol officers. The turtle catches in Brevard start on June 1 every year, but so far only scattered sightings have been reported.

Brevard's beachfront is home to more turtles than any other county on the east coast.

In Palm Beach County, there are no organized turtle catches but turtles can generally be spotted at the following locations:

Carlin Park in Jupiter; the 2.5-mile strip of beach along A1A in Juno Beach; the beach immediately south of Jupiter Inlet; and the beach south of Juno Pier. Strays occasionally nest at Lost Tres Village and further south on Singer Island.

still frequented by the nesting turtles because the beaches here are still relatively undeveloped.

The clean white sand also is proving more and more popular for vacationers, both from north and south, who want to sunbathe, surf and

swim during the daytime without fighting urban traffic.

Surf fishing is popular along the seven-mile stretch of Hutchinson Island in Martin County, and also northward up the coast in St. Lucie County along State

Road A1A.

MARTIN COUNTY is widely recognized for its deep sea charter boats, its river fishing and its wide array of camping facilities.

A few miles south of the Jensen Bathing Beach is a 19th century Coast Guard station, built on a ledge of rock, formerly known as the Gilbert's Bar station of the U.S. Coast Guard but now the Martin County House of Refuge Museum.



Turtle Tracks Lead to Ocean  
... job's done, Mama takes off

# turtles get a sea-going party

By JEANNE WELLENKAMP

Christian Science Monitor  
News Service

MIAMI, Fla. — On the beach at Cape Florida, Kathy Hilderbrand planned a quiet going-to-sea party for 250 turtles she'd raised since they were three weeks old.

Instead of quiet, Kathy found television and newspaper photographers focused on her. Someone hung a microphone around her neck and asked her to talk turtle. A crowd of friendly, curious swimmers gathered to watch this first launching of turtles from the Florida state park at the tip of Key Biscayne.

FOR KATHY, the day was the climax of a year's hard work raising turtles at Miami's Seaquarium. She felt the hours well-spent because green turtles have almost disappeared from Florida waters and are an endangered species throughout the Caribbean.

"Mostly it's man's fault," she said. "They've taken the eggs and the turtles themselves to eat. Also, if turtle eggs hatch on the beach, they have a very low survival rate because of predators."

That's why the Florida Department of Natural Resources runs a turtle hatchery in Jensen Beach.

ROSS WITHAM is in

But I'm as interested as anybody in ecology. Helping these turtles was one way of preserving the balance of nature. That appealed to me."

THE TURTLES were 1½-inches across when Kathy started to work with them. Twice a week she drove to the Seaquarium. There, her duties included weighing, measuring, and tagging the turtles and devising diets for them.

"I divided the turtles into three groups and took samples from each group. Some were fed only fish, others only lettuce and mangrove leaves, and the third group got fish and the leaves.

"I picked the mangrove leaves. That was really a mess—mangroves have a black, sticky sap. We found out a mixed diet promoted the best growth."

Kathy gave the diet lists to Seaquarium staff members who fed the turtles twice a day.

BUT CLEANING the tanks was exclusively her job.

"I always wore shorts or jeans, because I'd get kind of wet. One day I was sitting on top of the tank to clean it and I fell in a little. Well, it was only three feet deep, and it wasn't that hard to get out. The turtles were kind of surprised. They gathered around and looked at me, but they didn't take a nip out of me."

Kathy says the turtles became friendly. "I don't think they really knew me, but if I would come up and

stand at the side of the tank, all the turtles would swim over toward me."

WHEN the turtles grew to the size of 10-inch dinner plates, 250 were selected to be released.

"I was really surprised at all the people who were there to watch the turtles head for the water. My mother was there, and she couldn't believe these were the baby turtles I'd started out with, they'd grown so much.

"Naturalists believe the turtles will return to the same beach to lay their eggs. That will be in about six years, and I want to be there when it happens."

GREEN TURTLES may eventually become plentiful again, thanks to conservationists such as Kathy Hilderbrand.

She hopes that man will remember what almost happened to the green turtles and stop taking them for steaks and soup, even though they are considered a delicacy.

As for Kathy, she has never tasted turtle steak and never will.

"I couldn't eat a cute turtle," she said. "I hope people will let them live in peace."

Kathy says the turtles became friendly. "I don't think they really knew me, but if I would come up and



Christian Science Monitor Service Photo

## Kathy Hilderbrand frees her turtles.

charge, and he offered the Seaquarium about 400 baby turtles. Kathy got the project of raising them until they were big enough to be safe in the ocean.

Kathy, now a senior at Hialeah High School, has been enrolled in a special science program for gifted

Dec 3 72 Advertiser - SF

## PanAm charged with violation

LOS ANGELES (UPI) — Pan American World Airways has been charged with violating the Federal endangered species act for accepting shipment of 100 pounds of hawksbill turtle shells.

The U.S. Attorney's Office said charges were brought against the airline for accepting three shipments of

turtle shells from Haiti and Panama to Japan last summer.

The planes carrying the shipments stopped in Los Angeles en route, authorities said, violating the Federal law against carrying in interstate or foreign commerce materials derived from animals on the Federal list of endangered species.



*Cayman Islands, newest  
discovery in the Carib-  
bean, has great beach-  
es, marvelous fishing, a  
wide assortment of lodg-  
ings and as many turtles  
as tourists.*

# turtles and tourists

By HORACE SUTTON

GEORGETOWN, Grand Cayman — Did you ever see a purple turtle? Of a beach seven miles long? Or an island one hour from the U.S. Mainland that had never seen a real, live tourist until 16 years ago?

All these marvels can be ascribed to the Cayman Islands, a string of three sun-swept sandbars that belong to Britain, lie under Cuba and are just beginning to be discovered by Americans. Serviced only by flying boats until the mid-1950s, when the first airstrip was cleared, Grand Cayman now is only one jet hour from Miami and one half-hour from Jamaica.

The route is being flown by Lassa, the Costa Rican airline which was once an affiliate of Pan American. It uses British-made BAC 111s, some of which are on lease to Cayman Airways. Other airlines

OF ALL PLACES  
sutton



covet the route, among them Eastern, Delta and Southern.

FLYING INTO this undiscovered island is now so fast and so easy that the arriving explorer wonders why it wasn't claimed as touristland years ago. For one thing it was plagued by mosquitos, a problem that has been solved. For another, while Cuba beckoned the American traveler there seemed little reason to travel farther south to an island that was not developed.

Social unrest on neighboring islands, the isolation of Cuba and the arrival of fast air service have brought a new life to the Caymans. The islands offer fabulous stretches of pale beige beach, marvelous fishing, clear water scuba diving and a wide assortment of comfortable lodgings.

Three islands make up this tiny archipelago — Grand Cayman, the main island; Cayman Brac, a rocky atoll with a small stretch of beach and one hotel; and Little Cayman which is home for 25 souls and one fishing club.

SURROUNDED by a protective

barrier reef, Grand Cayman is where it's at. The island, shaped like a big claw, can now bed down a thousand visitors a night.

The most ambitious project is the new Holiday Inn, a four-story cantonment on Seven-Mile Beach which opened last August. It has 150 rooms and is building more. There is an imaginative pool spanned by white foot bridges, a tennis court nearing completion, and a fanciful saloon based on a true moment of Caymanian history — the Wreck of the 10 Sails. This maritime catastrophe involved 10 ships of the line of His Majesty's Fleet which went aground late in the 18th century on the east end of the island.

HOLIDAY INN'S drinking room glorifies this maritime moment. The bar is the prow of a ship and the false windows give out on false views of the sea. Despite such ambitious razzmatazz, this branch of the Holiday chain is, like everything else on the island, a low-key operation. It does not even hang out the famed Holiday Inn shingle.

Down beach, by contrast, there is the total quietude of the West Indian Club, a two-story pink expanse ensconced on the sand at the end of an avenue of royal palms. Built by Americans a dozen years ago, it is a complex of condominium apartments which can be rented by transient visitors. Each comes with a maid who makes breakfast and lunch, cleans and does personal laundry. A two-bedroom apartment with two baths, a large living room and a terrace for breakfast looking out to sea, costs \$30 a day in winter, maid included.

CHRISTOPHER Columbus, who discovered the islands, was fascinated by the green turtles cruising around his ships. The shellbacks were all but fished out over the years, but they are now being raised by Mariculture Ltd., a turtle farm near Seven-Mile Beach.

Eggs are gathered in the breeding beaches of Costa Rica, Surinam and Ascension Island, and hatched at the farm on Grand Cayman. Since turtles develop neck lesions, even in captivity, the farmhands spray them with gentian violet. Visitors to the turtle farm will see enormous tanks filled with purple turtles, an awesome sight, especially after a hard night.

### LAST OF 1973 PEN-REARED GREEN TURTLE HATCHLINGS TAGGED AND RELEASED

In the continuing Florida Department of Natural Resources Marine Research Laboratory restocking study, nearly 1300 tagged, yearling green turtles were released on Florida's beaches during 1974. Releases on east coast beaches were at Merritt Island National Wildlife Refuge (Cape Canaveral); Sebastian Inlet State Park; Hutchinson Island, east of Stuart and Jensen Beach; Gulfstream, Palm Beach County; and Cape Florida State Park, Dade County. One group that had been raised on Sanibel Island was released near the lighthouse there.

Initial studies of the ability of pen-reared sea turtles to survive in their natural habitat were carried out in 1964, when about 100 tagged, green turtle yearlings were released on Hutchinson Island. Capture reports from this release indicated good growth and oceanic distribution, and suggested the need to release larger numbers of turtles.

It was 1971 before a program was developed to collect green turtle eggs from Florida beaches, and collections have been made annually since then. Slightly less than 1000 pen-reared, tagged, green turtle yearlings were released each year in 1972 and 1973. Data from tag returns of these releases has added additional support to the effectiveness of this program.



Yearling Green Turtles being weighed and measured prior to being tagged and released.

# pposition in some races

an articulate Honolulu making her first race.

INEVITABLY, though, there will be a last-minute surge of activity as prospective politicians decide whether to put their names on the ballot for the 100-plus offices available.

Especially attractive this year are State House seats in reapportioned areas and seats on the State Board of Education, which was reduced in size and reapportioned by a Federal court's ruling this year.

Nomination papers for congress-

ional and State offices must be turned in to the Lieutenant Governor's Office at the Capitol or to Neighbor Island county clerks' offices. Papers for county elective offices should be turned in to the appropriate county clerk before today's 4:30 p.m. deadline.



Advertiser photo by Art Otremba

The turtle, in all its resplendent glory.

## Creature from the back canal

There is one word that truly describes the creature found at the canal behind the Enos residence the other day, and that word is "yuk."

The creature, seemingly capable of scaring the daylights out of even its mother, is a Chinese softshell turtle.

It was found by the grandson of Mr. and Mrs. Frank Enos on Monday night at their home adjacent to the Kapalama Canal. The Enos family confined the turtle to a tub for the night, then hauled it off to Honolulu Zoo yesterday.

CURATOR JERRY MARR looked up the ugly little monster and learned that the Chinese softshell turtle was introduced to Hawaii before World War II.

"The first official report on the turtle was made in 1947. It was known at that time only on Kauai," Marr said.

"Both the Chinese and Japanese make wide use of it for food. They had backyard turtle ponds in earlier days."

He said one of the beasts could fetch \$6 per pound during World War II.

Marr said the Enos turtle will not be released to the wild but instead will stay at the zoo.

*Honolulu Advertiser August, 74*



You may have them live, but law forbids importing  
crocodile products.



AUG. 4, 1974 L.A. EXAMINER

## The World's Most Expensive Shoes?

Crocodile shoes may be stylish but they are illegal and can be expensive, an Italian based corporation learned in Beverly Hills Municipal Court, according to the California Department of Fish and Game.

Under a federal law designed to protect crocodiles abroad, and to prevent them from becoming endangered, footwear or luggage made from crocodile leather, may not be imported into the U.S.

As a result the law took a \$2500 bite out of the Beverly Hills firm's pocketbook. The court ordered a representative of the shoe store in Beverly Hills to pay a fine in that amount after he pleaded guilty to importing 49 pairs of crocodile shoes which had a retail value of \$120 to \$190 per pair.

Half of the fine money will go to the Los Angeles County Fish and Game Propagation Fund while the remainder was turned over to be DFG's Wildlife Preservation Fund.

Judge Leonard Wolf at the same time ordered the company to ship the shoes back to Italy.

The shoes were seized by DFG wardens Bob Jones and DeWayne Johnston after Jan Chatten, a deputy state attorney general, spotted the shoes while shopping.

Determining whether the shoes were actually made of crocodile proved to be one of the most interesting aspects of the case, according to Ralph Young, DFG spokesman.

Young said Dr. Robert Bezy, herpetologist at the Los Angeles County Museum of Natural history, finally narrowed the identification down to one of three species of crocodile after X-rays revealed tiny dermal bones in the scales. Crocodile scales are slightly pitted because of these bones whereas the alligator scale is smooth, Dr. Bezy said.

The herpetologist said the shoes came from the African slender snouted, the Congo dwarf or the West African dwarf crocodile.

Young said these species of African crocodiles are not endangered but that state and federal laws, because of the difficulty in distinguishing various species applies to all crocodiles including Cuban, Morelet's, Nile

and Orinoco. The latter four are said to be endangered.

The DFG also announced that laws forbid the importation into California for commercial purposes or possession with intent to sell within the state parts of any alligator, crocodile, polar bear, leopard, ocelot, tiger, cheetah, jaguar, sable, antelope, wolf, zebra, whale, cobra, python, sea turtle, colobus monkey, kangaroo, vicuna, sea otter or Spanish lynx.

The American alligator, polar bear, etc. are not endangered but the U.S. Department of Interior has banned their importation for political reasons and in order to placate anti-hunting and pressure groups, the DFG said.

Recently the Texas Parks and Wildlife Department biologists announced Texas has 26,451 'gators in 1927 square miles of suitable habitat. Florida and Louisiana, the other two major alligator producing states, report populations of at least 300,000 of these reptiles in each state.

— JIM BREZINA

L.A. EXAMINER JUNE 23, 1974

## Albino Turtle 1st of its Species to be Found

Christian Science Monitor News Service

MIAMI, FLA.—The albino is said to appear in any and all species of life—though chiefly in vertebrates—at some time or another. But so far as is known, the Miami Seaquarium's albino green turtle is the first of its species to be discovered.

Named Pebbles—for he wasn't much bigger than one at birth (Oct. 14, 1973), the turtle was moved to a wall tank for public display in mid-November and has been thriving ever since. He has a lightly rounder carapace than other green turtles and has pink eyes and white shell and skin, but is otherwise normal in appearance.

Pebbles doesn't see particularly well, which is the case with most albinos; light is ineffectively screened out because pigment is lacking. However, he catches on readily, coming to the side of the tank when he gets the signal of water splashing for his fish dinner.

No wonder: Pebbles is hand-fed chopped fish—herring, mackerel or blue runner—as well as jellyfish. This pampering agrees with him; Pebbles maintains a rapid growth rate and, at the age of four months, is larger than most ordinary seven-month-old green turtles.



THE FIRST ALBINO SEA TURTLE on record is held by Pat Foster, who is earning her degree at Michigan State University by monitoring more than 200 juvenile green turtles, recording their nutrition. Hatched Oct. 14, 1973, at the Fla. DNR Laboratory on Hutchinson Island, it was discovered by biologist Ross Witham, turtle researcher since the 1950s.

*National Fisherman JUNE 1974*

## Protection For Sea Turtles Sought In Florida

GAINESVILLE, FLA. — Florida's new executive director of the Dept. of Natural Resources, Harmon Shields, is seeking legislation providing further protection to sea turtles.

Distressed by certain Caribbean countries decimating the dwindling species, Shields called a meeting of the state's top sea turtle authorities with his administrative and research staff in Gainesville, where they discussed for three hours the best possible action.

The proposed legislation would prohibit the possession of marine turtles or parts of turtles unless it can be proved by invoice to have been produced from a foreign country. Pending federal action would make even these importations illegal. Florida's planned legislation would also require a permit from the DNR for any use of marine

turtles, whether educational, exhibitional or research.

Shields explained the action as two-way — an outreach to offending neighbors by example in Florida waters. Said he, "Although Florida is removed from the center of the green turtle population, we should set an example for the Caribbean nations. If the green turtle and other species are to be saved — perhaps as a future protein source — action must be taken to halt the wholesale slaughter practiced by certain Caribbean countries.

"Let us see if by setting this strong example Florida can do more than its share to accomplish this end."

—Peg Robinson

## Theory of Sea Turtles' Endurance

(C) N.Y. Times Service

NEW YORK — The remarkable endurance and navigational ability of a particular population of green sea turtle, which migrates annually from grazing waters along the coast of Brazil to its nesting ground on tiny Ascension Island, 1,200 miles out in the Atlantic Ocean, has long fascinated and puzzled scientists.

An expert on turtles and a specialist in geophysics have teamed up to suggest that a possible explanation of how the turtles acquired such abilities lies in the theory of sea floor spreading and continental drift.

THE SCIENTISTS, Dr. Archie Carr of the University of Florida in Gainesville and Patrick J. Coleman of the University of Western Australia in Perth, published their theory in a recent issue of *Nature*, the British scientific journal.

The scientists suggested that 80 million years ago, when South America had only recently broken away from Africa, to create a narrow ocean between them, the turtles — known from fossils to have lived then — had only to swim a few miles to reach their nesting island.

But, the researchers theorized, as the ocean widened and the sea floor sagged, existing islands would be submerged, to be replaced by newer islands formed by volcanoes at the mid-Atlantic ridge.

THE RIDGE is a gap in the ocean floor, midway between the continents on either side, where molten rock from within the earth is continually welling up to form a new sea bottom, which then moves away from the gap, following the drifting continents on either side.

From time to time, the ridge produces a volcanic cone that rises above the water to become an island. Because the island rests on the ocean bottom, it too moves away from the ridge and eventually submerges, to be replaced by still another island at the ridge.

As each new island appeared over the ridge, it would be farther from the mainland than the previous island, thus forcing the turtles to swim farther.

OVER MILLIONS of years, the scientists suggested, this process acted as an evolutionary force, producing the green turtle's characteristically enormous shoulder musculature and stores of heavy fat that provide energy for a long swim.

Soundings on the ocean floor between the easternmost tip of Brazil and Ascension Island have revealed a string of more than a dozen submerged volcanoes that, each in its turn, may once have been a breeding ground for the turtle, the scientists reported.

Turtles take about eight weeks to make the trip, leaving Brazil from December to March.

## All turtles, nests, and eggs now protected under law

TALLAHASSEE — All marine turtles, their nests and eggs are now protected under a new Florida law, Harmon Shields, executive director of the Florida Department of Natural Resources, said today.

The law, which took effect on May 10, prohibits any person from taking, possessing, disturbing or mutilating, destroying, selling, offering for sale, transferring, molesting, or harassing any marine turtle nest or eggs at any time.

Shields also said no person, firm, or corporation shall take, kill, disturb, mutilate, harass or destroy any marine turtle unless by acci-

dent in the course of normal fishing activities. Any turtle accidentally caught will be returned to the water alive immediately.

He also stated that no person, firm or corporation may possess any marine turtle or parts thereof unless they are in possession of an invoice evidencing the fact that said marine turtle or parts thereof have been imported from a foreign country or outside the territorial waters of the state, or under special permit from the Division of Marine Resources for scientific, educational or exhibitional purposes.

# environment

## eden's ter ptional skill and ch ice charming amc

well too, though, going all the way to the quarterfinals before losing a tough, five-set match to veteran British pro Roger Taylor. It was quite a performance for a youngster who has just turned 17 a month earlier, but was really only the beginning of an incredible 10 months which has catapulted him up among the world top players.

### Beat Ashe, Laver, Nastase

Two months after that now-famous Wimbledon appearance, Borg defeated Arthur Ashe in a nationally televised match during the U.S. Op at Forest Hills, N.Y., and before a year was out he had also knocked Rosewall, Ilie Nastase, and assorted other big names in individual matches while earning almost \$50,000 in prize money.

Scattered upsets like these are normal of course, but it's not until a player starts putting his victories together and winning tournaments that he really moves up — and that's what Borg has done this year. Recently he was in the final of three consecutive tournaments, winning two of them. He beat Ashe, Roscoe Tanner, and Mark Cox to win at London; he beat Laver before losing to Ashe in the final at Barcelona; then he defeated Ashe once again in the final at Paulo, Brazil.

These performances have already pushed his prize money over \$50,000.

## Albino green turtle is thriving nicely

By Peg Robinson  
Special to

The Christian Science Monitor

Miami

The albino is said to appear in any and all species of life — though chiefly in vertebrates — at some time or another. But so far as is known, the Miami Seaquarium's albino green turtle is the first of its species to be discovered.

Named Pebbles — for he wasn't much bigger than one at birth (Oct. 14, 1973), the turtle was moved to a wall tank for public display in mid-November and has been thriving ever since. He has a slightly rounder carapace than other green turtles, and has pink eyes and white shell and skin, but is otherwise normal in appearance.

Pebbles doesn't see particularly well, which is the case with most albinos; light is ineffectively screened out because pigment is lacking. However, he catches on readily, coming to the side of the tank when he gets the signal of water splashing for his fish dinner.

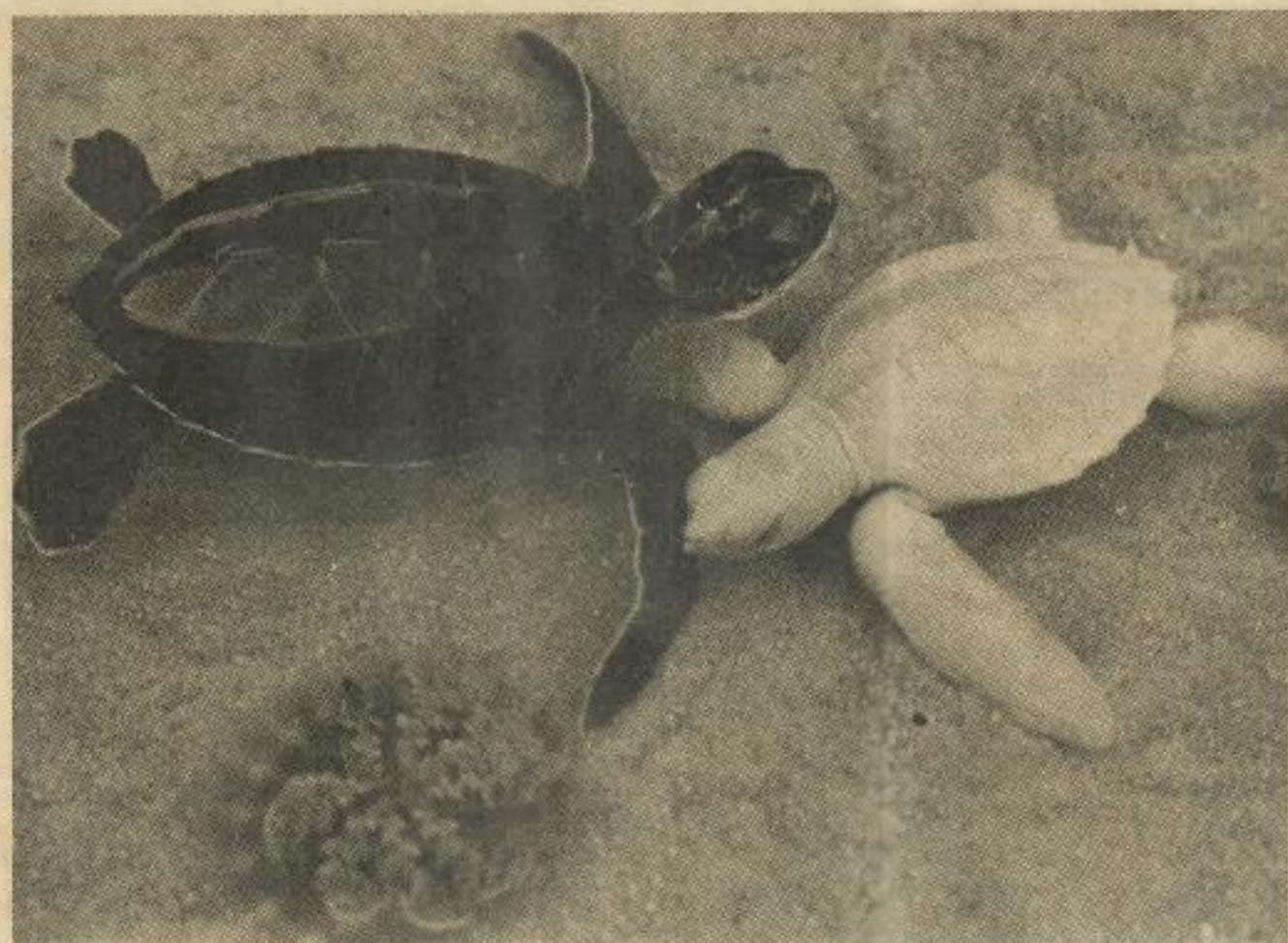
No wonder: Pebbles is hand-fed chopped fish — herring, mackerel or

blue runner — as well as jellyfish (*Cassiopea xamachana*). This pampering agrees with him; Pebbles maintains a rapid growth rate and, at the age of four months, is larger than most ordinary seven-month-old green turtles.

Ross Witham, a marine biologist of the Florida Department of Natural Resources, talked readily of his work that led to Pebbles' discovery. "As a researcher of the FDNR, I've been working since 1966 on programs designed to enhance the survival chances of our turtles. While including loggerheads and leatherbacks, our work currently stresses the greens, which appear to be in the most precarious survival position.

"We're involved in ongoing studies of captive breeding and pen rearing of hatchlings for later release. Some 40 greens of various ages are being held at three separate places; the Miami Seaquarium and the House of Refuge Museum near Stuart are keeping the immature turtles, and Florida Power & Light Company provides facilities at their Turkey Point site for a mature pair.

"Economical food sources are a



Courtesy of the Wometco Miami Seaquarium

### Pebbles (right) with another of his species

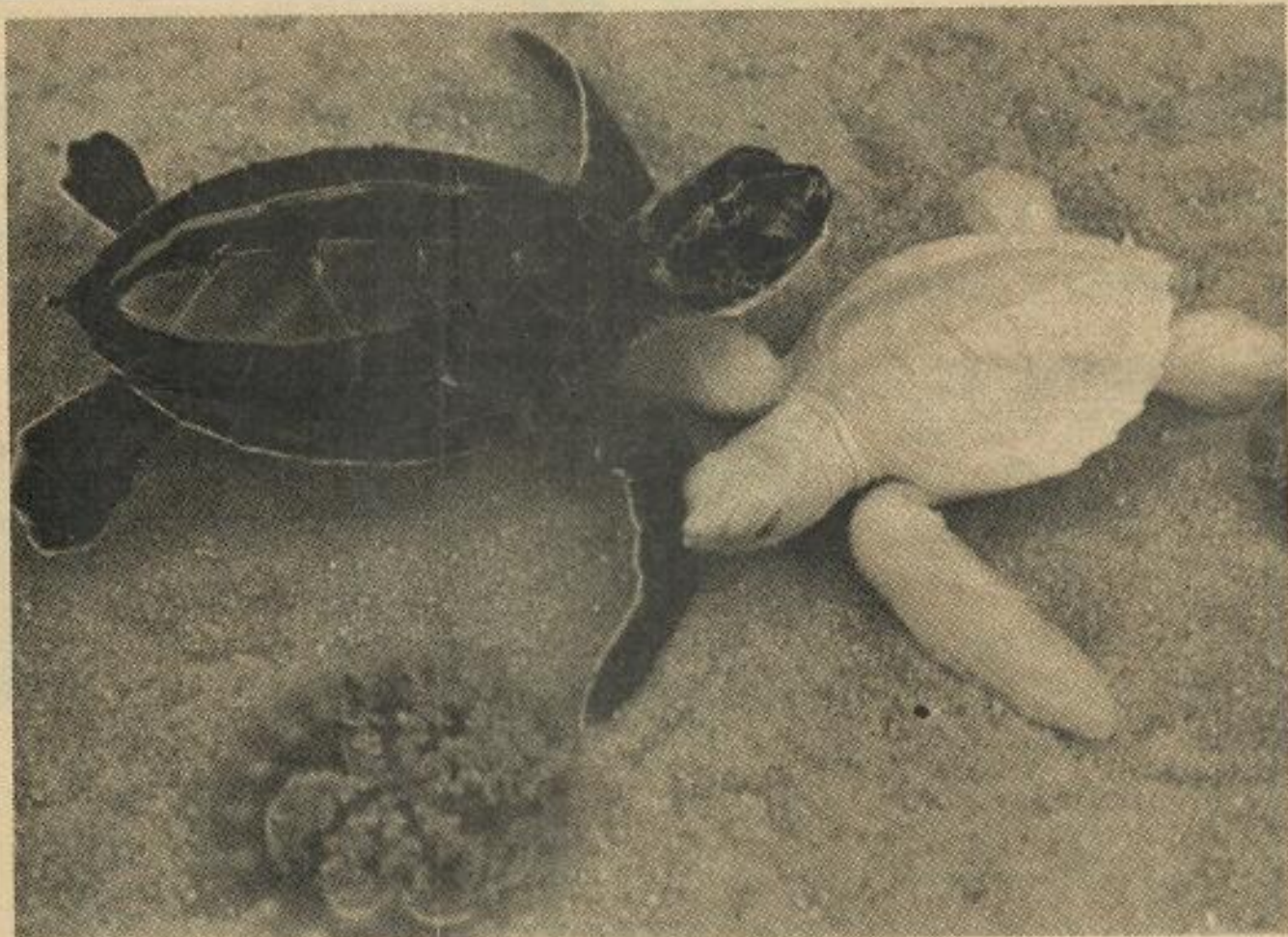
must. In Florida much crab waste is available. At the Miami Seaquarium I've shown that young turtles can live on jellyfish alone. The greens, of course, go herbivorous at age one, consuming a number of suitable plants. One species is common in the

Florida Keys and we are hopeful of cultivating it in captivity.

"I hope that some day soon we'll have all our captive breeding turtles in one facility. We are working with FPL toward this end, anticipating the facilities will be provided at their

nuclear plant site on Hutchinson Island."

The turtles are a part of an effort to maintain the balance of the Floridian eco-system. Pebble's uniqueness may attract much-needed public interest to this cause.



Courtesy of the Wometco Miami Seaquarium

### Pebbles (right) with another of his species

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Thurs., March 14, 1974



**KEEPING VIGIL** on a post outside of one of the shell shops which line Overseas Highway, this turtle skull probably was attached to some fine turtle

steaks. However, the green turtle may soon be added to the list of endangered animals protected by the federal government.

—Keynote Photo by RON MASON

5378305  
C.R.M.A.  
\$11.59 = 1000

# New Hebrides Stamps Support Wildlife Conservation Campaign

The New Hebrides has issued eight stamps on Feb. 11 promoting support of the nation's Wildlife Conservation campaign under way. The issue comprises four values with English inscriptions and four denominations with French-language text with values and designs common to each other.

The four animals shown on this special issue drawn by H. Bregulla, naturalist of the nation's Cultural Center—are the symbols of the different types of animals threatened by the economic development of the islands and the fast population increase, report postal officials.

Values and designs are 25 gold centimes, Pacific pigeon for the bird species; 30c, Night swallow-tail butterfly for the insects;

## South Perth Meets

A program on "Postcards Used in Australia," will be presented at the March 7 meeting of the South Perth Stamp Collectors' Association. Details about the club may be obtained by writing 7 Carr St., South Perth, W.A. 6151, Australia.

70c, Green Sea turtle for reptiles and other water animals; and 1.15 gold franc, Flying fox for mammals. Printing was photographed by the French Stamp Printing Office, Perigueux, France.

Among the five different species of existing sea turtles, the Green Sea turtle (*Chelonia mydas*) is the most widespread and perhaps also the most man hunted.

An adult animal can reach a size of 1.20 meters in length and can weight 350 kilos. But, today this size is only reached by a few individual turtles because of unseasoned and excessive hunting.

The flesh of the turtle is the ingredient of the famous turtle soup, the shell is sold as a souvenir or used in handicraft works. Besides, as its eggs are eaten, consequently, the nests, which can hold up to 200 eggs or more at the same time, are too often taken out nowadays.

The Pacific pigeon (*Ducula pacifica*) is the most widespread representative of fruit-eating pigeons, and a species which is typical of the Pacific Islands.

This big bird needs to be protected as it is sought by hunters whose number is increasing everyday while the forests where the birds live and breed are rapidly diminishing — giving way to plantations and other development projects.

The Night swallowtail (*Mycalena curvata*) is the biggest of lepidoptera of the New Hebrides. This impressive insect is now rather rare because it can only live in virgin forests and can only reproduce itself there.

With its large wings of thin skin which usually are 700mm wide, the Black flying fox (*Pteropus*) is the largest of the kinds on the archipelago.

Among the mammals, only flying foxes and bats are capable of a real flight, while a few others — Lemours or the flying squirrels — can only hover.

The Black flying fox spends the day hanging upside down very close to the branches of high trees. It is only at nightfall that the animals fly to the spots with lots of wild fruit, which it likes ripe and juicy. It is being threatened by hunters and the clearing of the forests.



The new Hebrides issued this set of four designs in two languages on Feb. 11 to promote support for Wildlife Conservation.

## LPCS Journal Salutes Herst

The feature article in the March issue of the Local Post Collector's Society "Bulletin" is a salute to Herman Herst Jr. and the Scrub Oak Local Post by Bob Phillips, reports Charles W. Brandstetter, publicity director.

Other features include a continuation on "British Parcel Carriers" by society president David Sterling and the usual

columns. Brandstetter advises the article on Herst will be reprinted for distribution to nonmembers who send a return-addressed stamped envelope to Local Post Collector's Society, 6713 Roper Road, Baltimore, Md. 21284.

The society begins its third year of existence with the March issue, Brandstetter reports.

The Province  
of Vancouver, B.C.

*Slow but sure*

# TURTLE SLOOP

6/22/74  
SAT

United Press International

MANILA — A shipwreck victim rode a giant sea turtle for two days until she was rescued by a Philippine navy vessel.

The navy said Candelaria Villanueva, 32, was one of 277 persons aboard a ferry which sank 600 miles south of Manila. A total of 243 persons were rescued.

Lieut. Cesario F. Mana, an officer aboard the rescue ship which docked here Friday, said Mrs. Villanueva was sighted clinging to what seemed to be a "huge oil drum. Someone threw her a life ring. The moment she transferred her hold to the life ring, the drum sank. We did not realize it was a giant sea turtle until we started hauling up the woman."

Dec 3 72 Advertiser - SFB  
**PanAm charged with violation**

LOS ANGELES (UPI) — Pan American World Airways has been charged with violating the Federal endangered species act for accepting shipment of 100 pounds of hawksbill turtle shells.

The U.S. Attorney's Office said charges were brought against the airline for accepting three shipments of

turtle shells from Haiti and Panama to Japan last summer.

The planes carrying the shipments stopped in Los Angeles en route, authorities said, violating the Federal law against carrying in interstate or foreign commerce materials derived from animals on the Federal list of endangered species.

# A MERMAID CHANGED FOR DINNER

Marine naturalist knitted lacy  
dresses when cyclones raged  
outside her lonely island hut



*Sydney naturalist Julie Booth with her 22-year-old son Carl, her faithful island dog called Lady Sula, and color slides of life on and around uninhabited islands in the Great Barrier Reef. She took more than 2000 pictures for research purposes.*

**P**ETITE blonde Julie Booth never forgets she's a woman — even on uninhabited coral islands in the Great Barrier Reef.

For seven years the only appreciative eyes around belonged to her dog Lady Sula, a pet hawksbill turtle she called Esmeralda, and the myriad sea creatures she's been hooked on most of her life.

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### By VALERIE CARR

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(Her favorite, the giant green turtle, inspired her to publish a scientific paper on its behaviour. But she's rather guarded about her work with turtles because she is preparing another paper as well as a story on her life with them. This month in fact, she is to see a professor in London about publishing this second paper.)

Yet her solitude didn't stop Julie — self-taught naturalist, photographer, artist, skindiver — changing for dinner every evening. Or splashing on her favorite Givenchy perfume.

"I didn't want to lose my femininity — especially as I was doing a man's work," she said, curled up on a couch at her parents' home in South Hurstville, Sydney.

"Look at my knuckles." She stretched out tiny sun-darkened hands. "They've thickened from all the hammering I did, making furniture — a chaise-lounge, shelves for my cosmetics, a dressing-table — and dragging up my dinghy from the water.

"They look like an 80-year-old's!"

Her face looked anything but old. Island make-up, including eyeshadow and lipstick, had shielded her skin from searing tropical sun and salt water.

And her figure would make a teenager proud.

With her long, sun-streaked hair, it wasn't surprising letters simply addressed: "The Mermaid, Lord Howe Island" (Julie's first island home) reached their destination.

Others with instructions "Off the coast of Australia" didn't go astray, either — including one with "Try the Antarctic" scrawled across the envelope.

Julie confessed: "My secret passion was designing and making nighties on an old treadle machine — I made everything from the skin out, including my bras."

The frilly pink mini dress she was now wearing — accented by a necklace of creeper shells from the reef — was part of that homemade wardrobe.

"The nighties were usually very feminine.

"On Fairfax, at the southern tip of the Barrier Reef, I used to run down to the lagoon at first light, shed my nightie, and work up a lather from a shampoo to bathe in."

"Remember how all those mullet would swim up and start eating the bubbles?" That was her 22-year-old son Carl, an apprentice cabinet-maker.

He shared her solitude for a year.

His mother's taped descriptions of island life had whetted Carl's imagination. Once his schooling was finished, he decided to join her and he was with her in 1971 on Fairfax Island and Wreck Island.

Julie Vincent, as she then was, was born in Maroubra, a seaside suburb of Sydney. Even at ten anything to do with nature interested her.

She was always bringing home stray, injured dogs. Her mother's problem was disposing of the menagerie when it recovered.

And when Mrs. Vincent opened the door of the fridge, an octopus or shrimp was quite likely to slide across the butter...

"Anaesthetising fish was the kindest way of killing them before preserving them," explained Julie. "But sometimes they'd come to."

When the fish were dead, the ten-year-old took them

## Julie painted money to buy

along to the Australian Museum.

After leaving school, Julie had a variety of jobs. "Sometimes I lied about my qualifications. But as soon as I had conquered the job, it lost its charm.

"Life without challenge is just existing."

Julie didn't take up the sea fulltime until her marriage fell apart. Then, at a Sydney club, she discovered spearfishing and skindiving.

"I was told. That's a man's sport. You can't go to sea with a speargun, lead belt, and knife strapped to your leg."

Smiling: "I was warned that the ocean was full of predators waiting to gobble me up!"

The only predators Julie came across the first time she

donned mask, snorkel, and flippers was a careful of nervous eels.

The seahorses, too, which she collected in Middle Harbor for the Taronga Zoo aquarium could hardly be called frightening...

But her involvement with them did lead to appearances in ABC documentaries. And, eventually, to her first island, inhabited Lord Howe.

There the ABC filmed the "mermaid" painting underwater.

"I began doing this because I had no money for a camera with an underwater housing.

"I used oils in hypodermic syringes and specially

shorts and top, she would stand on the steps of the marine research station feeding reef herons which flew in for their evening meal.

"I tamed more than 100," she said. "I gave them all names - Josephine, Harry Belafonte, Jackson. One was even called after a philandering Australian photographer I once met.

"He chased all the female herons."

Her work, entirely unpaid, included banding muttonbirds and observing brown boobies from eight at night until six in the morning.

But it was turtles that

don't learn self-control and patience, you'd go berserk.

"Before, I used to be unstable and unpredictable. Now I'm just unpredictable. I had to be stable to cope with island life."

Cyclones came, stripping the island's foliage. "Sometimes the noise would keep me awake for four nights at a time," she said.

"I kept myself occupied by knitting lacy dresses."

Later, as the official weather observer among everything else, she had to keep records of cyclone movements.

But being cut off by tropical storms was hard to take. More so, when she switched on the radio and heard that country towns, isolated by floods for a mere five days, were getting warm blankets and fresh food.

She had sometimes been shivering for eight weeks.

Above all: "Don't let anyone tell you life on a tropic island doesn't cost anything. It can be very expensive."

She wouldn't dream of living on fish, she explained, because she didn't want to kill the life she was so interested in.

And chartering a store boat from the mainland once a month (weather permitting) cost at least \$200.

"On Fairfax, I wasn't allowed to grow anything, because it was part of a national park.

"I never made any bones about telling Carl how tough life could be."

"I didn't realise just how tough," put in Carl.

On Wreck Island, a coral cay on which Julie obtained a ten-year lease for scientific research, he helped his mother build a four-room

## underwater when she lacked herself a waterproof camera

treated wallboard. But I got more paint on myself than on the 'canvas.'" Her submarine art decorates the wall of her parents' home.

On Lord Howe, Carl lived with his mother in a palm-shaded cottage.

She paid their way, teaching skindiving, painting names on boats, showing slides at guest-houses in return for meals.

She also received fresh fruit and vegetables, as well as money for diving under glassbottom boats to feed tusk fish and hump-headed wrasses so that tourists could take photographs.

Four years later, Julie (minus Carl, studying at Sydney) went to Heron, the resort island off North Queensland.

Here, too, she became a tourist stop. Wearing faded

became her great interest. As soon as she saw them on Heron she became fascinated with their life-cycle.

"Only the females come out of the water to lay their eggs. I thought that perhaps away from tourists, I'd have a better chance of observing their underwater habits."

So in 1965 Julie moved to uninhabited Fairfax Island, 65 miles from any port. By now she was intensively collecting marine specimens and observing reef life for various institutions.

For the first six months she didn't even have a watch. She baked her own bread, got up by first light. Her life evolved around the tides and weather.

"Isolation," she said, "magnifies all your faults beyond endurance. If you



*Julie goes reefing on Fairfax Island. For seven years she was alone on Reef islands, and during one further year she had her son as company.*



*Right: Julie's dog companion, Lady Sula, watches over a newly-hatched turtle on its way down a beach to the sea. Waiting gulls would scream angrily at the dog for depriving them of a tasty meal.*





*Carl Booth, who was with his mother for a time on Wreck Island, looks at the official notice which established their right to be on that lonely coral cay.*

hut, partly from driftwood, with a dirt floor.

"We were like a couple of scavengers," Carl said. "Pulling nails out of driftwood, then straightening them to use again.

"The trouble was, I was terribly clumsy. I kept breaking things and losing tools in the bushes. Lanterns as well."

"He was also very good at fixing things," said his mother. "He discredits himself."

Carl's city upbringing caught up with him, however, when Canadian Prime Minister Pierre Trudeau and his entourage joined the Booths for some scuba diving.

"What shall I wear?" he asked his mother worriedly. When she assured him that casual clothes were in order, he still insisted on covering up his swim trunks with a shirt (both made by his mother).

After a barbecue lunch — eaten off the "dining-room" table built by Julie — she took Trudeau reefing.

It was a rare visit. Yet Julie knew no loneliness. Even when Carl returned to Sydney to learn a trade, the gap was soon filled by her work.

Only one experience made her think twice about her isolation. One of her daily tasks was studying the mating habits of 300lb. green turtles. ("It takes four men to lift one out of the water.")

"Rival males would mount me when I was swimming underwater," she explained. "It was quite dangerous.

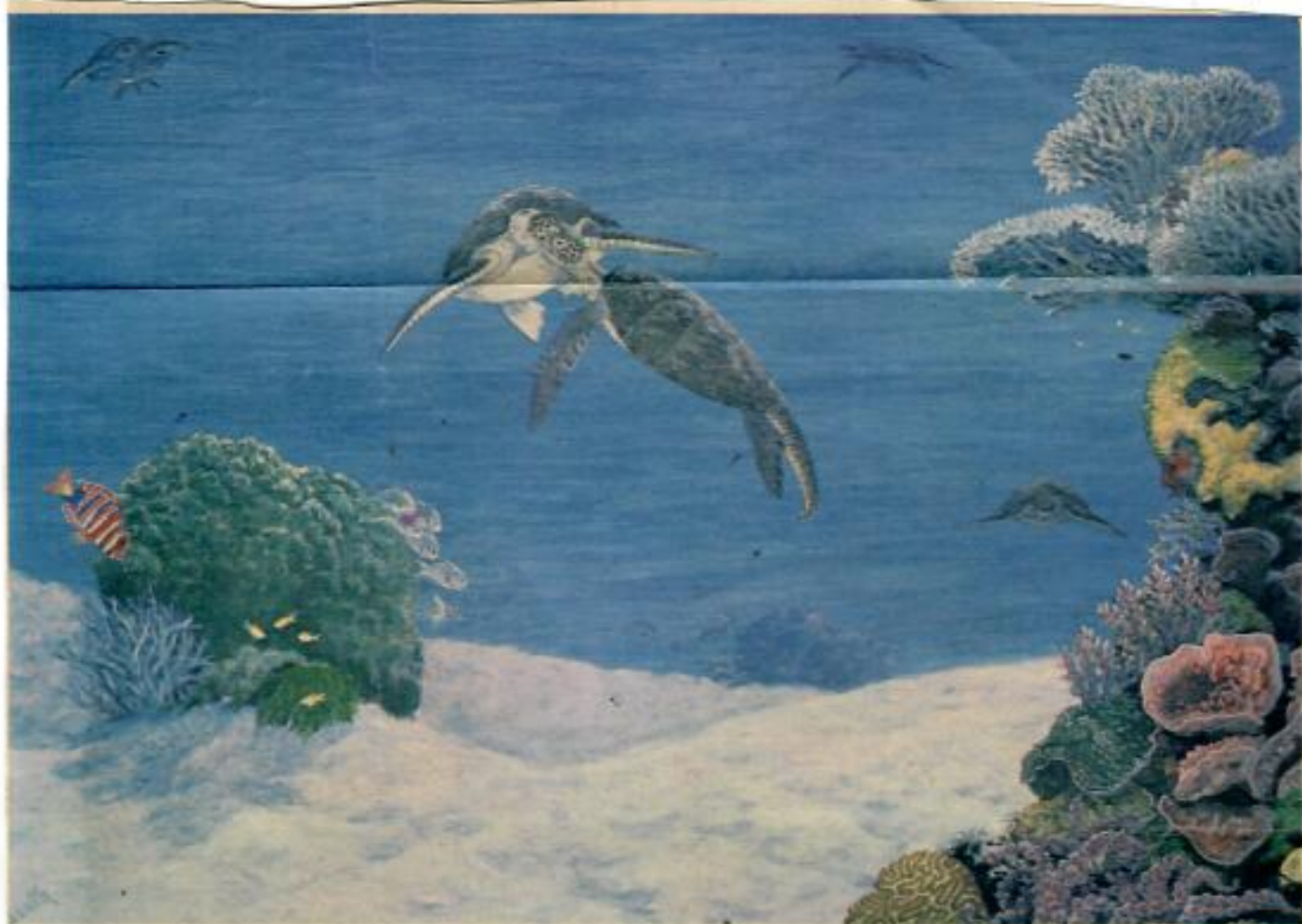
"Well, I knew female turtles rejected ardent suitors by outstretching their flippers. I did likewise with my arms, and the males swam away.

"I longed to tell somebody about my discovery. Of course, there was nobody — so I told Sula."

The kelpie-mix Lady Sula was a good companion.

"She loved island life, didn't you, Sula?" said Julie. "Watch! 'Let's go reefing, Sula!'"

Instantly the dog's ears shot up.



*Above: Carl's 22nd-birthday present — courting turtles painted underwater by his mother, on a piece of Wreck Island driftwood.*



*Left: Julie pictured in her abandoned RAN hut home on Fairfax Island. She made the table herself, and for fun painted the top to look like plastic.*

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80/3

# World Famous Cushioned Handle Scissors Make Any Cutting Job Easier Than Ever

**NOW! . . . With Glamorous Tortoise Shell Look Handles**

✓ NO RISK . . . TRY FOR 30 DAYS

- ✓ Contour Finger Grip . . . Molded To Fit Your Hand
- ✓ Eliminates Hand Fatigue
- ✓ Stainless Steel Blades Never Rust
- ✓ Famous European Design

**Angled handles make straight or curved cuts easy.**

NEW! Comfort grip scissors with rich tortoise shell look handles. Here's a scissors design so comfortable, so efficient, you'll be amazed how easily you can cut thru all kinds of fabrics and materials. Amazing 'Stay-Sharp' stainless steel blades keep their razor edge thru years and years of use. Rustproof . . . with safety blunted tips . . . use them in the kitchen with complete safety!

**Two convenient sizes tackle any cutting job.**

Two practical sizes . . . 6½" shears for intricate cutting . . . embroidery, paper, haircutting. The large 8½" size for the heavier work in the kitchen, sewing room, workshop, office. Both scissors are angled so you can slip them along the table to make long straight cuts easier than ever.

Each pair weighs just ounces—yet super-strength easily cuts thru the toughest jobs. Keep a set at home . . . another in the office. What a fantastic gift!

**ORDER NOW!**

only **\$4.98**  
set of two

That's **TWO** for less than  
the price of **ONE!**



FANCY CUTS



STRAIGHT CUTS

Mail to: **GRACE KAY VALUES** Dept. 103,  
68 Broadview Avenue, Ste 511 Toronto, Canada M4M2E6

Cut Here

With YOUR GUARANTEE OF SATISFACTION OR MY MONEY BACK, please send me \_\_\_\_\_ set(s) of Tortoise Handled Scissors, which includes the Sewing shears and the Dress-making Shears.

- \$4.98 + \$1.00 shipping . . . . . (Total \$5.98)
- SAVE!** Two for \$8.98 + \$2.00 shipping . . . . . (Total \$10.98)

**Grace Kay**  
VALUES

**UNCONDITIONAL GUARANTEE**

You Never Risk a Penny!

If you're not absolutely delighted with your purchases, return within 30 days for a full refund!

PLEASE ADD APPLICABLE SALES TAX  
Make cheque or money order payable to:  
**GRACE KAY VALUES**

Enclosed is \$ \_\_\_\_\_  
(please print clearly)

NAME \_\_\_\_\_

ADDRESS \_\_\_\_\_

CITY \_\_\_\_\_

PROV. \_\_\_\_\_ POSTAL CODE \_\_\_\_\_

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# World Famous Cushion-Handled Scissors Make Any Cutting Job Easier Than Ever



Fancy Cuts



Straight Cuts

- Perfect for Home, Office, Workshop
- Beautiful Tortoise Shell Handles

Now you can own **TWO** of the most-needed shears - 6 ½" long and 8 ¾" long - **both** for less than you'd pay for one.

**ORDER TODAY!** **\$3.98**

**DO NOT CUT! SEND ENTIRE COUPON!**  
Mail to: **PAT HARRIS, INC.**, Dept. 530,  
Box 5000, Rutherford, N.J. 07070

With YOUR GUARANTEE OF SATISFACTION OR MY MONEY BACK, please send me \_\_\_\_\_ set(s) of Tortoise Handle Scissors. (ITEM NO. 459)

- \$3.98 + 60¢ shipping . . . . . (Total \$4.58)
- ORDER EXTRA SETS FOR OFFICE, HOBBYISTS AND SEWERS
- SAVE!** Two for \$7.48 + \$1.20 shipping . . . . . (Total \$8.68) (N.J. RESIDENTS ADD 5% SALES TAX.)

Make check or money order payable to: **PAT HARRIS, INC.**

(PRINT CLEARLY) Enclosed is: \$ \_\_\_\_\_

Name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

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