

SAGA OF THE SEA TURTLE



by Edison Cruz, Sr.
Better known as Blackie Cruz

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The Warty Green Turtle

Very little is known about the warts or growths that for some reason grow on the small Green turtles here in the Gulf Waters, or the Bay as it is called.

For some reason, (to the best of my knowledge after catching these turtles with warts) I have found that the turtles get these warts from the brackish waters of the Southeastern Gulf of Mexico. I have never seen any other species of sea turtle with them.

The warts grow over the turtles' eyes so that they cannot see to eat; so they then die from starvation or are eaten by their predators. The warts are only skin deep and only the small (20 to 60 pound) turtles have been found to have them.

In my five years of research with these warty turtles, I have found that these warts are contagious to other small Green turtles. To prove this, I put two small warty Green turtles that I had caught in one of my pens with some of the small Green turtles which I raised from babies.

In six months, my turtles had contracted them. We do have circulating water from pen to pen, but it is still not pure ocean water. Pure ocean water has a cer-

tain amount of iodine in it which would cure these turtles, but in our pens there is not enough iodine in the water to kill the larvae of these warts.

In one of our other pens where we have other small, and larger Green turtles, those small Green turtles also had warts. Yet, there were no warty turtles put in the pen with them. This is proof that larvae, or plankton of some sort, had to circulate from one pen to another.

These warts thrive in brackish water like the water in our pens, and the shallow waters of the Southeastern Gulf, also. Since I know how and where these Green turtles feed, I would like to emphasize how these Green turtles get the warts in the wild.

No pollution of any kind has anything to do with the turtles getting these warts; it is Nature's way of all living things. These warts aren't man's doing.

When the small turtles are feeding on a pasture of turtle grass, their four flippers are stretched out for a fast take-off in case some predator wanders too close. If a warty turtle has been feeding at this same place, the clean turtle will contract the warts from the larvae off the warty turtle.

In three or four months, this turtle would infect

the grass where he has been feeding by crawling through the grass (all parts of the turtle are in contact with the grass while feeding).

The warts only grow on the skin of the turtle. They start on the underside of the fins, the rear end, under the neck, and on the tender skin around the eyes; then they spread all over the turtle's skin. They start so small the eye can barely see them and grow to the size of a golf ball in a few weeks.

In four or five months, they reach the size of a baseball. After they reach a certain size, they start to change colors: white, pink, blue, and finally purple. The turtle gets the warts during the summer months when the water is warm.

When winter comes, the turtles leave the shallows in search of warmer waters. Some migrate from the Gulf into the warmer water of the Atlantic.

If these turtles aren't too far gone and can still see to find food, they will survive; the iodine in the water will kill the warts.

I have seen small Green turtles dead, with their eyes covered over with warts. I have also caught warty turtles in nets that had their under-sides covered with

big, multi-colored warts. I have tried many ways to cure the warts, but only iodine has ever had any effect on them.

I have many of these turtles now to cure, but it takes time, patience, and money. They aren't pleasant to look at or to work with, but when doing research with sea turtles as I have done, we have to do things that we don't always like to do.

Warty turtles are nothing new. The first warty turtle that I had ever seen was in 1913. I was told by some of the old turtle fishermen that they had seen warty turtles as far back as the late 1800's.

In those days, when a small Green turtle was caught with these warts, they would cut the warts off, put him in a pen, and in a few months the turtle would be cured.

If I had a pen with clean Atlantic water, I would try that with the ones that I have now; but the flowing tide brings in the water from the Atlantic only part of the time as the ebb tide brings back the Gulf waters before the iodine from the Atlantic has a chance to do any good. The deep water of the Gulf does have iodine in it, but our hatchery is 12 miles from those deep waters and 5 miles from the deep waters of the Atlantic.

Our pens only have the change of tides for circulation; and turtle pens should be built where the tides can flow through them--not just in and out as the kraals here at our small hatchery do. With clean, circulating water you would get better growth, faster growth, and healthier turtles.

At times it does get complicated doing research on sea turtles. For instance: Why don't larger Green turtles get these warty growths?

After a few weeks of research, we found out that the larger Green turtles had much thicker and tougher skin. I would like to emphasize that all sea turtles have an outer skin as well as an inner skin, and that they don't shed their skin or their shell.

As the turtle grows, the outer skin gets tougher and the under skin gets thicker. This is why warts won't grow on the larger Green turtles. This growth can't penetrate through the tough outer skin to get to the inner layer so that it can grow. This is also why the warts are only skin deep.

I know that all sea turtles grow faster in the wild than they do in captivity, and I have never seen a 10 to 18 pound turtle with warts.

Why?

It is because the warts grow rapidly and kill the small turtle before winter sets in when these turtles seek warmer water.

Unfortunately, we didn't have any turtles of this age or size in our pens to do research on to find out if this size Green turtles get warts.

If they do, do the warts grow fast to kill these small turtles, also?

If God spares life a few more years, I will do research with these small one-, two-, and three-year-old Green turtles.

In captivity the Green turtle grow to weigh 3 to 5 pounds in the first year and 8 to 12 pounds in the second year. I have never seen warts on this age or size of Green turtle, Loggerhead, Hawksbill, or the Ridley.

The latter three species of sea turtles don't get these warts because of the extreme toughness of their skin, but they do catch the small-shell animal known as the barnacle.

This shell-animal is also found mostly in the Gulf of Mexico. The animal will grow on anything that will hold still long enough for them to attach themselves.

(Ship bottoms while tied to the dock, etc.)

When these turtles lay on the bottom to rest or to sleep, these tiny animals will attach themselves to their shell or skin. For some reason, those which grow on the skin won't grow too large before they will drop off, but those which grow on the shell will reach their normal size in a few months.

The adult size of the barnacle is about that of a nickel, although some do grow to be the size of a quarter. Very few are ever found on the Green turtle or the Ridley. The Loggerhead is the lazy type, so it is more often the one to have barnacles.

The Hawksbills do have barnacles at times, too, but for some reason their shell is thicker and smoother. This could be why they drop off at a certain size or age.

Crab and crawfish traps on the Gulf side are covered with them a few months after they are set, but traps on the Atlantic side have no barnacles. It could be that since the iodine content is much stronger in the Atlantic, it may have the same effect on the barnacles as it does on the warts.

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SAGA OF THE SEA TURTLE



"He who knows and knows he knows
is a wise man; but he who thinks he
knows and knows not is a fool--try to
convince him."



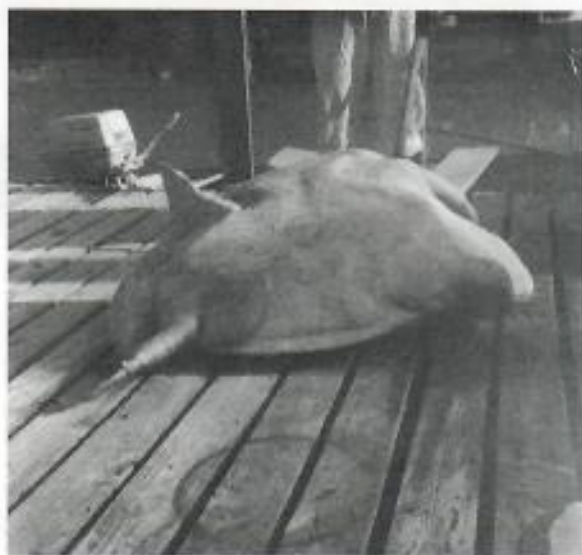
Warty green sea turtle whose warts I later cured
at our turtle hatchery on Ramrod Key, Florida.



Close-up view of the warts.



**Female loggerhead turtle at
Munson Island, Florida in 1967.**



Male loggerhead turtle at Munson Island, 1967.

FLORIDA BOARD OF CONSERVATION

PERMIT

Number: S-338 Date: 9 APRIL 1968

Issued To: MR. EDISON CRUZ, SR.

Address: P.O. BOX 16

SUMNERLAND KEY, FLORIDA

Counties Affected: MONROE

Type of Operation: PERMITTED TO CATCH A-LAYING TURTLE FOR RESEARCH PURPOSES AT THE RAMROD KEY TURTLE HATCHERY.

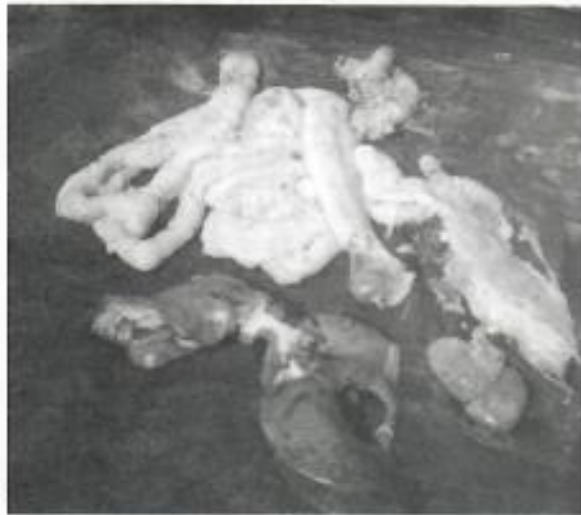
This permit is revokable at any time and automatically expires on the next 30th of June following issue.

Ranilopi Hodges
RANILAPI HODGES, Director

Permit for catching laying turtles for research.



All sea turtles stop eating to collapse their intestines to make room in their bellies when they are pregnant with eggs.



Twenty-four feet of collapsed intestines, liver, heart, and kidney taken from the pregnant turtle above.



Mrs. Lloyd Jordan and myself showing the difference between a one-year-old and a two-year-old green turtle.



Getting ready to release some of our year-old green turtles; myself on the left and Don Sweat, Ph.D. on the right helping with his truck.



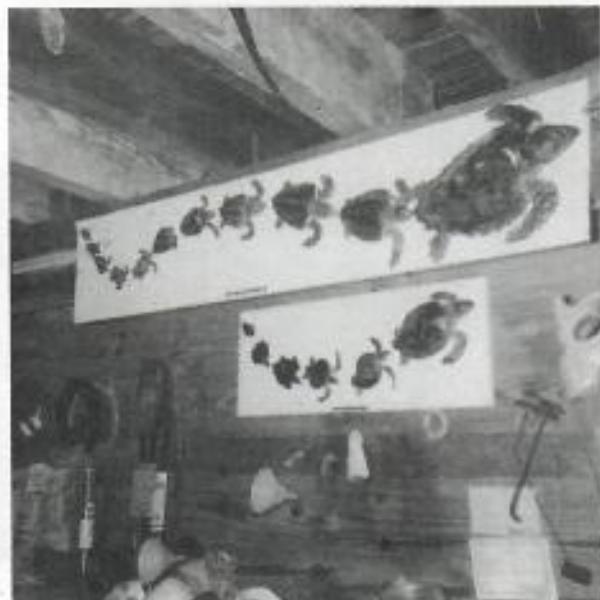
At Bahia Honda beach the 220 year-old green turtles were tagged and let loose. These were the first to be let loose in public.



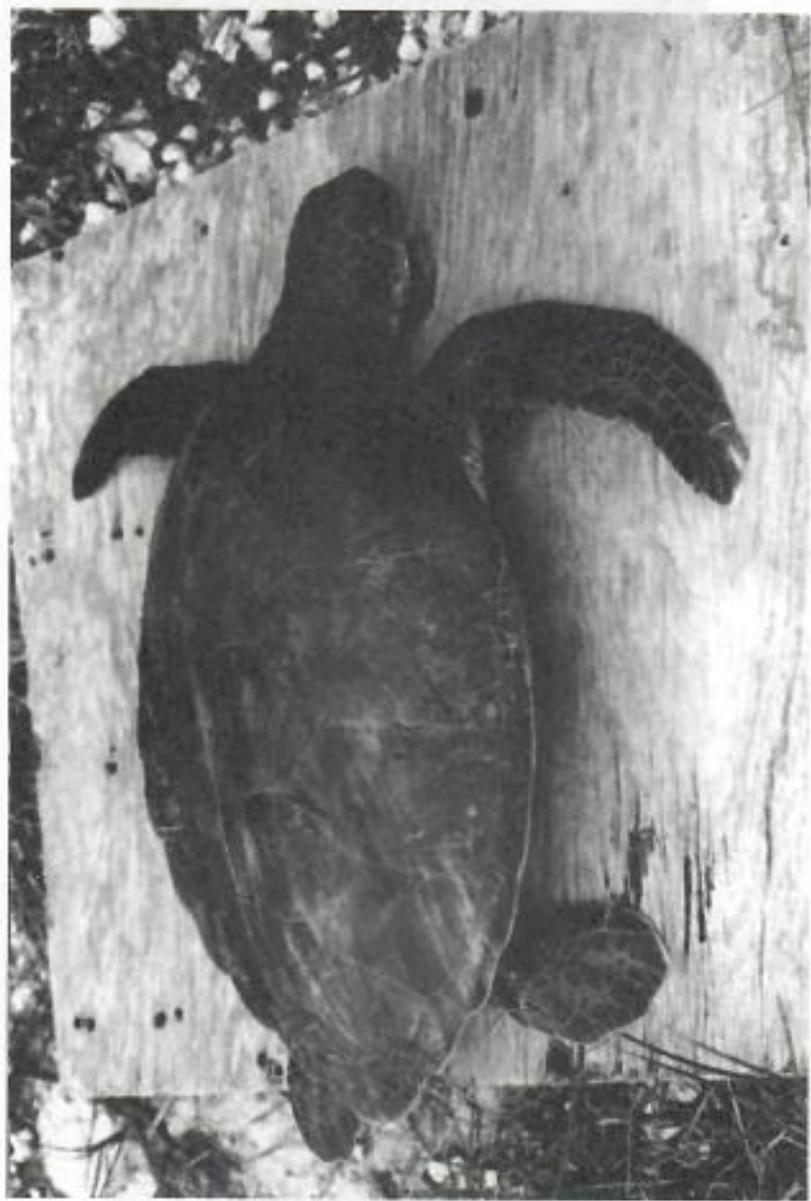
8000 more were let loose over the next six years on other beaches here in the Florida Keys.



**This is a display of mounted baby loggerheads
that I mounted at our hatchery.**



**This is a display of mounted baby green turtles
that I mounted at our hatchery.**



Green turtle.



Looking west at our small turtle hatchery built by John M. Spottswood for my son and I to do our research about sea turtles. Notice the incubator and chute extending into the tank of seawater.



Another view looking east of our turtle hatchery on Ramrod Key, Florida, in 1963.



New-born baby loggerheads trapped
in the shell that would have perished.



Looking west at our small turtle hatchery built by John M. Spottswood for my son and I to do our research about sea turtles. Notice the incubator and chute extending into the tank of seawater.



Another view looking east of our turtle hatchery on Ramrod Key, Florida, in 1963.



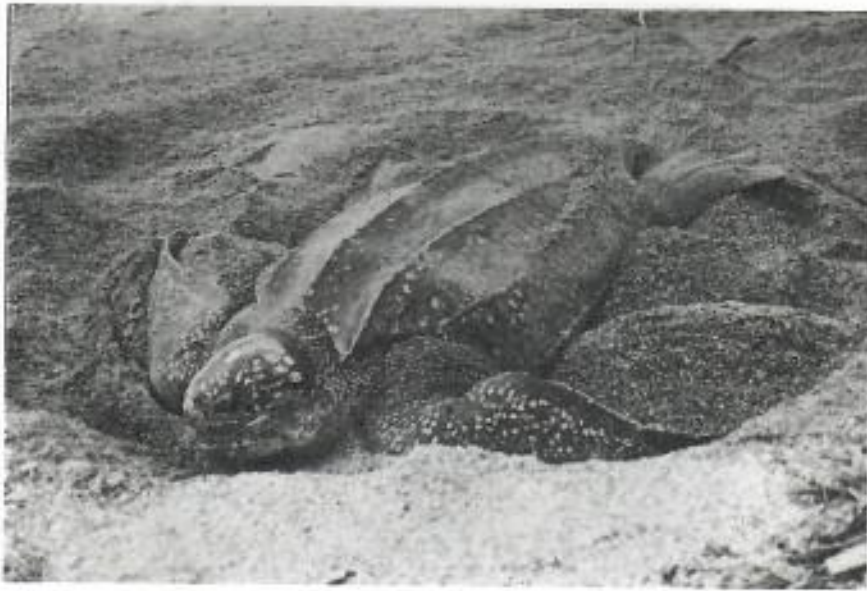
Taking up five-week-old loggerhead turtle eggs for hatching from Bahia Honda Beach in 1964.



My son, Edison, Jr., helping to take up the eggs.



Bahia Honda Beach where we get
most of our turtle eggs for hatching.



Leatherback turtle after laying her eggs.



Ridly sea turtle laying her eggs.



Tracks made by a leatherback sea turtle.



Leatherback turtle laying her eggs.



Myself with an 11-month-old loggerhead that I raised
in a washtub at Marquesas Keys in 1945.



Here I am showing how a 300-pound loggerhead sea turtle is flipped over on its back. Marquesas Keys, 1945.



Me taking up turtle eggs for hatching 25 years later.



Here I am sitting on a 390-pound green turtle.
These turtles were caught in 1959
by Bob Dominguez and myself.



Another load of green turtles that we caught in 1960.



More turtles caught in 1960.



Me steering the boat and Bob midship, showing most of the turtles too large to pull into the small boat.



**My good friend, Wayne Frair, Ph.D., Professor of Biology,
taking a blood sample from a loggerhead sea turtle
in Key West, Florida.**



**A leatherback sea turtle after
blood samples have been taken.**



Hawksbill turtle.



Another view of the same turtle.

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