

creases the concentration of carbon dioxide.

If carbon dioxide is inhaled in excessive amounts, such as in the non-ventilated enclosed hold of a vessel, it will pass quickly to a control center in the brain and cause breathing to be affected adversely which, of course, leads to other problems. Some suggested means of preventing these tragedies are the use of readily available belts with ropes and snaphooks to rescue persons overcome in the hold, and the use of mechanical ventilators during the unloading of fish from the vessel and in fish meal factories.

#### **HAWAII'S CONCERN FOR ITS TURTLES**

Most tagging studies of turtles have taken place at nesting beaches, where females conveniently come ashore at specific sites. Few tagging programs have been conducted in turtle feeding areas because much effort must be expended in their capture. George Balazs of the University of Hawaii at Manoa is presently directing a program of tagging green sea turtles in the latter areas, and the work is providing information on migrations, growth rates, and the survival of this species.

Balazs has also been encouraging the release of captive green turtles where excessive numbers are present. In 1973, 21 turtles were tagged and set free from the Waikiki Aquarium and 9 from Sea Life Park. Of this number, three have thus far been reported as captured. One was caught by a conservation-minded diver off the south coast of Lanai. Since it had been originally released off Kauai, this large adult turtle had traveled over 200

miles. After close examination, it was again set free. It was seen, however, that large sections of laminae on its carapace were peeling off with healthy new shell located underneath. Balazs speculates that the time the turtle spent in captivity with subsequent release to the wild where differing temperatures and pressures exist may have stimulated the shell molting.

For centuries, green sea turtles have been a valuable source of protein for many people. The greatest pressure from man, however, on the populations of these turtles has resulted from commercial exploitation, such as in the marketing of turtle jewelry, leather and cosmetics, and in the inclusion of turtle soup and steak on restaurant menus.

Today, in the entire Hawaiian Archipelago, only one congregated green turtle nesting area still exists. The small sand islets at French Frigate Shoals, 480 miles northwest of Honolulu, are the site of 95 percent of all the nesting activity taking place in the region. Although the shoals have been declared a protected area, studies have shown that the turtles breeding at these islets are the same animals that occur around the Hawaiian Islands, where they are unprotected and over-exploited.

Fortunately, the Hawaiian State Department of Land and Natural Resources now has under consideration protective legislation that would place stronger controls on the capturing of green sea turtles, and Balazs hopes these controls will become effective before drastic declines of the turtles occur and they actually qualify as being endangered.

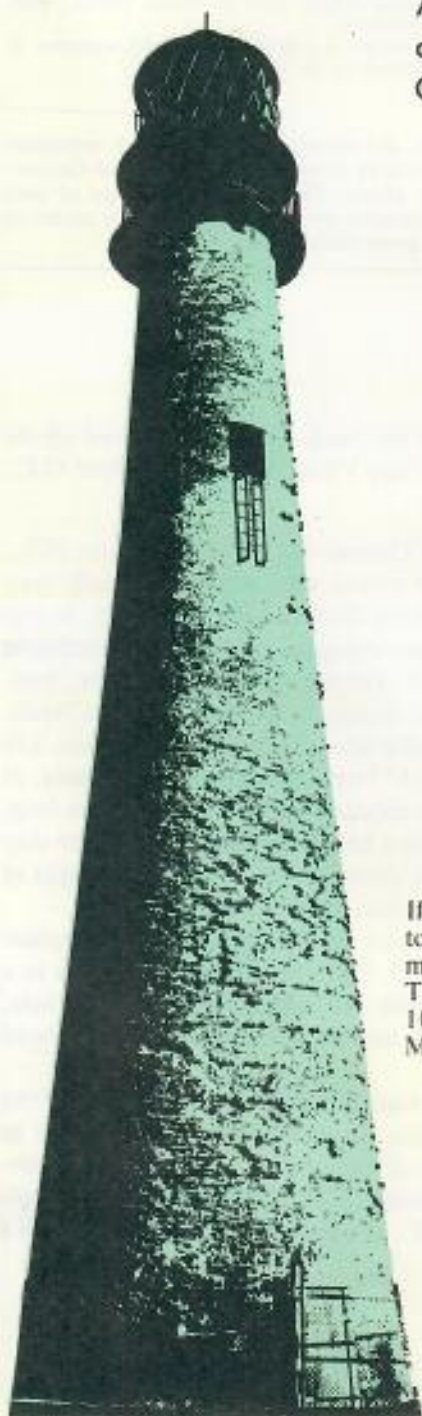


*NINE HEALTHY CAPTIVE green sea turtles were recently tagged and released into the wild by workers at Sea Life Park, as part of a University of Hawaii study of the migrations, growth rates, and the survival of the dwindling population of these turtles.*

Please see page 12-13

# Sea Secrets

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