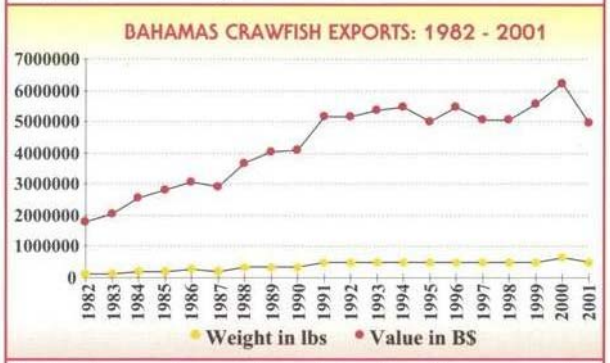
Economic Importance

The Spiny Lobster fishery is of great economic importance to the commercial fishing industry of The Bahamas. The fishery makes a significant contribution to the growth and development of the nation's economy, in particular, the socioeconomic development of many Family Island communities.

Prior to the 1930's, lobster were regarded as having little value apart from a staple article of food and bait. During the mid 1930's the capture and export of crawfish became an



industry and continued to develop over the years. Expansion of fishing operations in the 1970's as a consequence of the exclusion of foreign fishing fleets from The Bahamas' Exclusive Economic Zone (EEZ) in 1977 brought a considerable increase in lobster landings in The Bahamas. The development of the processing industry in the 1980's caused further economic benefits to be realized.

Today, the fishery is a multimillion dollar industry and generator of huge foreign exchange earnings. Further, The Bahamas is the second largest producer and exporter of lobster in the Caribbean region after Cuba. On average, lobster represent in excess of 60% of total fishery product landings and in excess of 85% of the value of the landings on an annual basis. Additionally, lobster represent on average in excess of 80% of fishery products and resource exports and in excess of 95% of the value of the exports annually. Landings of lobster over the past ten years (1991 - 2000) have averaged around 5.8 million pounds with an average value of B$57 million. Exports of lobster over the same period (1991-2000) have averaged around 5.4 million pounds with an average value of B$59 million. The continued success of The Bahamian commercial fishing industry is very much dependent on the export of lobster/crawfish to the United States, the European Union and Canada, which are the three main destinations of The Bahamas' exports. This however will only be achieved if fishermen use responsible fishing methods and the public respects the Fisheries Regulations designed to ensure a sustainable fishery.

Laws Governing Crawfish

1. An annual closed season April 1-July 31
2. A minimum harvestable size of 31/4 inches carapace length or 51/2 inches tail length.
3. A permit is required for all vessels trapping crawfish.
4. Crawfish traps, unless otherwise approved, shall be wooden slat traps not more than 3 feet in length, 2 feet in width and 2 feet in height with slats placed not less than one inch apart.
5. The possession of "berried" (egg bearing) crawfish is prohibited. Stripping or otherwise removing the eggs from "berried" females is also prohibited.
6. Except by written permission of the Minister, no person shall use or have in his possession: (a) dogwood or other poisonous barks; (b) quicklime; (c) household bleach; or any other noxious or poisonous substances.

Nothing lasts forever, let's preserve our marine resources for future generations.

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CRAWFISH

A Valuable Bahamian Resource

Department of Fisheries
The Bahamas

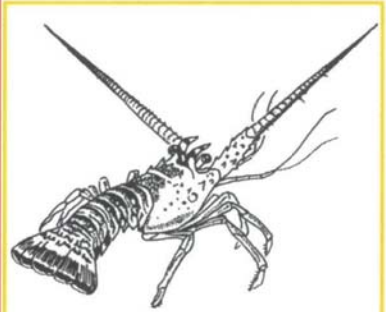
Introduction

Spiny lobsters or Crawfish, as they are known in The Bahamas, are decapod crustaceans belonging to the family Palinuridae, which are principally tropical and subtropical in distribution. They support major commercial fisheries worldwide and the spiny lobster is one of the most economically valuable species in The Bahamas.

Distribution & Life History

Crawfish are widely distributed throughout the tropical and subtropical waters of the Atlantic Ocean, Caribbean Sea and Gulf of Mexico. They occur in The Bahamas, Bermuda, the West Indies and South Florida.

This species has a complex life cycle which requires three distinct habitats. Lobster larvae drift for several months in the open ocean before changing into a post larval stage that moves onshore, seeking shallow, vegetated habitats in which to settle. Following settlement, the post larvae transform into early bottom-dwelling juveniles that remain hidden within vegetative cover, sheltered from predators and with access to an abundance of prey. After some time, juvenile lobsters emerge from this habitat and seek daytime refuge within the near shore nursery under structures such as rocks, seaweeds, sponges and octocorals.



Palinurus argus

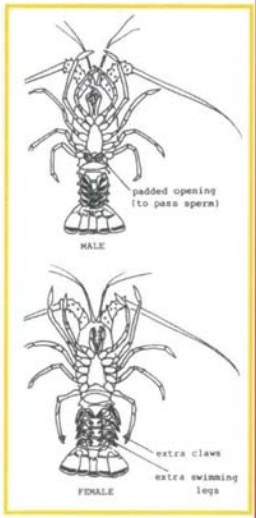
In recent years, the use of artificial structures which are known locally as condominiums have been used to concentrate lobsters for ease of capture. As they mature, they move out to seaward reefs. Adult spiny lobsters favour rocky areas, sponges and patch reefs where they hide in the daytime and come out at night to hunt for food.

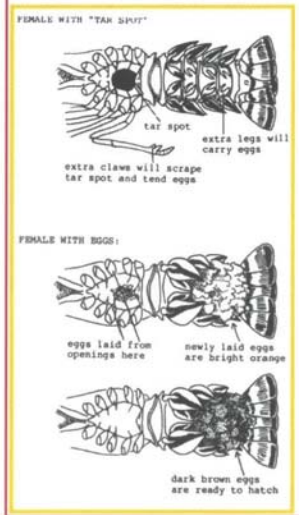
Description

The tubular shaped body of the spiny lobster is encased in a hard exoskeleton, which is variable in colour from mottled greenish purple to reddish brown. The tail has four conspicuous yellow spots, one on each side of the second and last abdominal segments. Unlike the American lobster, the spiny lobster lacks large pinching claws or a rigid fantail. The spiny lobster has long, whiplike antennae, and the frontal part of the shell (carapace) is covered with forward-projecting spines. Two sharp frontal horns project over the eyes.

Reproduction

Lobsters are either male or female. Female lobsters have two extra claws at the tip of each last leg, and an extra set of swimming legs underneath the tail. Male lobsters have a padded opening at the base of each last leg. Crawfish reach sexual maturity between 8 and 10 inches total body length. They mate and spawn during the warmer months of the year.





The water temperature affects how fast a lobster grows and how soon it becomes a mature adult. Lobsters can live for more than 10 years and can reach almost 3 feet in length from head to tail. A female lobster whose carapace length measures 31/2 inches carries a maximum of about 500,000 eggs.

Food

Lobsters are often scavengers, their diet consists of bits of dead fish, worms, snails, sea urchins, shrimp, crabs and clams.

Lobsters are also prey for many different animals at varying stages of their life cycle. Larval lobsters are defenseless creatures that are eaten by other animals occupying the sea with them. Adult lobsters are the favorite food of nurse sharks, octopus and groupers but snappers, other sharks and stingrays also eat them.

Methods of Fishing

"Condominiums", traps and spears are the preferred gear for the spiny lobster fishery in The Bahamas. Condominiums or casitas are aggregating devices designed to attract lobster and are made of a variety of materials while traps are made almost exclusively of wooden slats. Most individuals involved in the industry with the exception of trappers, utilize "hooka" or air compressors while diving to harvest crawfish.

There is also a vibrant recreational fishery for spiny lobsters involving both Bahamian as well as visiting yachtsmen who primarily spear fish using Hawaiian slings to obtain their catch.

Important habitats

Spiny lobsters require a variety of habitat types to complete their life cycle. Coral reefs, mangroves, sea grass plains and open ocean are all necessary constituents for the survival of the spiny lobster. The Marine Reserves Network being established by the Department of Fisheries will serve to protect all the necessary habitats for lobsters as well as other commercially important marine species. This network, together with the national parks managed by the Bahamas National Trust will offer additional protection of species like the spiny lobster by not allowing any fishing in protected areas.