



## Marine Invertebrates

### Ula poni or Spiny lobster *Panulirus marginatus*

**SPECIES STATUS:**  
IUCN Red List - Not considered  
Endemic

**SPECIES INFORMATION:** Ula poni or the spiny lobster (*Panulirus marginatus*) lacks large pincers on its first pair of legs and has one pair of antennae that is often bigger than its other antennae. Ula poni feed across sandy bottom areas that are next to reefs. They are carnivorous and feed at night on mollusks, echinoderms, crustaceans and fish. They may spawn up to four times a year from May to August and November to December. Females can produce up to half a million bright orange eggs each time they spawn. The mass of eggs is held in the female's swimmerets under her abdomen. They hatch in four weeks and go through various pelagic larval stages that last almost a year. After a year in the open ocean, they return to the reef. Juveniles are usually a few centimeters (one inch) long.

**DISTRIBUTION:** Historically, ula poni were distributed throughout the Hawaiian Archipelago. Today, they are still are found throughout the Archipelago. Pelagic larval distribution is not well understood, but one study shows that larvae move with ocean currents northwest along the ridge of the Archipelago to the southeast and then southwest.

**ABUNDANCE:** Numbers can be relatively high in pristine areas; however, numbers are greatly reduced from historic abundance due to over-fishing. Over the past four years, commercial catch has continued a long decline, slipping below 4,500 kilograms (10,000 pounds) for the past three years. The recreational fishery catch is unknown.

**LOCATION AND CONDITION OF KEY HABITAT:** Ula poni are found in crevices and caves, as well as under ledges. They may be found in shallow waters of approximately a meter (three feet) or in areas up to 180 meters (600 feet) deep. Key foraging habitats are sandy areas next to coral reefs. Healthy coral reefs are important habitat. Not much is known of the pelagic lifecycle of ula poni larvae.

**THREATS:** Ula poni were traditionally eaten by Native Hawaiians and were taken commercially in the trap fishery from the mid-1970s to 1999 in the Northwestern Hawaiian Islands (NWHI), specifically at Necker Island and Maro Reef. Populations experienced a serious decline in the early 1990s that continued until the late 1990s.

- Localized heavy fishing pressure remains a serious threat in the commercial and recreational fishery, although the fishery is closed in the NWHI and regulated in the Main Hawaiian Islands. Young are also collected for the aquarium trade;
- Habitat alteration such as degradation to coral reefs may also be an issue.

**CONSERVATION ACTIONS:** The goals of conservation actions are to not only protect current populations, but to also establish further populations to reduce the risk of extinction. In addition to common state-wide and island conservation actions, specific actions include:

- Maintain healthy populations with appropriate fishing regulations, enforcement, and education.

**MONITORING:**

- Continue to monitor population size to determine if fishing regulations and other conservation actions are successful.

**RESEARCH PRIORITIES:**

- Continue studies of larval distribution;
- Improve understanding of factors affecting the species population size and distribution.

**References:**

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Polovina JJ, Kleiber P, and Kobayashi DR. 1999. Application of TOPEX-POSEIDON Satellite Altimetry to Simulate Transport Dynamics of Larvae of Spiny Lobster, *Panulirus marginatus*, in the Northwestern Hawaiian Islands, 1993-1996. Fisheries Bulletin 97: 132-143.