

by Michael P. Seki

Valid name *Caranx ignobilis* (Forsskål 1775) (Fig. 51)
Synonymy *Scomber ignobilis* Forsskål 1775
Caranx hippoides Jenkins 1903
Caranx rhabdotus Jenkins 1903
 (from Gosline and Brock 1960)

Common and vernacular names Giant trevally; jack; ulua (adult); papio (young); pauu; hon-ulua; sometimes called white ulua, a misnomer

Distribution

Widespread in the main islands. Captured anywhere from the shoreline through the reef flats to the benthic slopes in waters from the surface to depths of 91 m at almost all islands and banks from Necker Island to Kure Atoll.

Distinguishing characteristics

D. VIII-I, 18-21 (usually 19-20); A. II-I, 15-17 (usually 16); P1. I, 18-20. Body deep, slightly compressed, with a steep, strongly curved head, snout blunt. Breast mostly naked, a small central patch of scales may be covered with skin just anterior to pelvic fins. Scutes or plates along the straight portion of the lateral line scales 28-30 (Williams 1958; Fischer and Whitehead 1974; Berry et al. 1981).

Varies from silvery to black in life. Large fish may have small black spots on upper sides of the body. Color differences in ulua are associated with sex and maturity (Talbot and Williams 1956). Mature males possess dusky to black bodies, heads, and fins; whereas mature females have bodies and heads that are pale to silvery.

Ulua is the largest species of the genus; maximum verified size is 146.0 cm FL, and 52.6 kg (Berry et al. 1981). Specimens from 20.7 to 133.0 cm FL (mean 74.4 cm) were collected in the NWHI.

Life history

Observations of natural spawning of *Caranx ignobilis* in the Philippines showed two spawning seasons, one in December-January and the other in June. Spawning occurred during the day, close to shore (Von Westernhagen 1974). Size at maturity was estimated to be 54-61 cm FL (Williams 1965). There is also a possibility that segregation by sexes occurs immediately before spawning takes place.

Feeding studies in the NWHI revealed that the species is primarily a nocturnal piscivore, although cephalopods and crustaceans were also significant in the diet (Okamoto and Kawamoto 1980; Parrish et al. 1980). Similar diet and feeding behavior were found for the species off East Africa (Williams 1965). Of particular interest is that ulua may also prey voraciously on sublegal and berried lobsters which have been released at the surface from commercial fishing vessels (Gooding 1985⁹).

A length-weight relationship of 124 ulua, ranging from 20.7 to 133.0 cm FL caught in the NWHI was:

$$W = 2.73 \times 10^{-5} L^{2.9131},$$

where W = weight (kg) and L = fork length (mm).

Gear and catch

Taken primarily by handline and traps; it is also one of the target species in recreational fishing and may be caught with bottom set line or by casting from shore with rod and reel.

Ulua is one of the dominant species of the jack fishery in Hawaii. The statewide annual landings of ulua (including several species of carangids) in 1961-79 varied between 19,647 and 55,494 kg and averaged 35,692 kg.

Highly esteemed by the local population, the ulua is one of the target species of bottom fishing boats operating in the NWHI.

⁹Gooding, R. M. 1982. Predation on surface and bottom released spiny lobster, *Panulirus marginatus*, in the Northwestern Hawaiian Islands. Southwest Fish. Cent. Honolulu Lab., Natl. Mar. Fish. Serv., NOAA, Honolulu, HI 96822-2396, Admin. Rep. H-82-1, 20 p.



Figure 51.—*Caranx ignobilis*.