

by Alan R. Everson

**Valid name** *Pristipomoides zonatus* (Cuvier and Valenciennes 1830) (Fig. 66)  
**Synonymy** *Tropidinius zonatus* Cuvier and Valenciennes 1830  
*Serranus brighami* Seale 1901  
*Apsilus brighami* Jordan and Evermann 1905  
*Rooseveltia aloha* Jordan and Snyder 1907  
*Rooseveltia brighami* Gosline and Brock 1960

**Common and vernacular names** Brigham's snapper; ukiuki; kalikali; gindai; ukikikiki

#### Distribution

Caught incidentally with other bottom fishes at various islands and banks throughout the Hawaiian Archipelago. In the NWHI, caught from Necker Island to Pearl and Hermes Reef at depths between 102 and 238 m near ledges and drop-offs.

#### Distinguishing characteristics

D. X, 11; A. III, 8; P1. 16; LLps, 63-67; Gr. 7+13. Body short, stout, moderately compressed. Head large, bluntly conic, with a large slightly oblique mouth. Teeth on jaws, vomer, and palatines in villiform bands. Teeth in outer series on jaws enlarged, like canine. Single dorsal fin rather large, originating just over base of pectoral. Pectoral fairly long, about equal to head length, its tip reaching origin of anal fin (Masuda et al. 1975).

Distinguished from other snappers by its unique coloration. Four broad yellow bands on upper half of body, the last extending to the base of the caudal fin. Three light red bands about equal in width to the yellow bands between these yellow bands. Lower half of body yellow, head and snout bright golden red, underside of the body reddish (Jordan and Evermann 1905).

#### Life history

Little is known about the life history of gindai. Preliminary estimates of von Bertalanffy growth parameters were obtained using counts of annuli on otoliths. The von Bertalanffy growth equation for gindai is:

$$L_t = 43.1(1 - e^{-1.09(t-1.51)})$$

where  $L_t$  = fork length (cm) expressed as a function of time  $t$  in years (Uchiyama and Tagami 1984). Estimates place a 3-year-old at 34.5 cm, 4-year-old at 40.2 cm, 5-year-old at 42.1 cm, and 6-year-old at 42.7 cm.

Gindai's reproductive cycle is probably similar to that of other snappers, and hydrated eggs develop in late summer; ovaries in ripe condition were collected in August at Laysan Island. The sex ratio is 57:43 ( $N = 106$ ) in favor of females.

The functional length-weight relationship for 86 gindai ranging from 26.3 to 48.9 cm FL is:

$$W = 7.12 \times 10^{-9} L^{3.1878}$$

where  $W$  = weight (kg) and  $L$  = fork length (mm) (Uchiyama et al. 1984).

#### Gear and catch

Species is taken mainly by deep-sea handline. Gindai contributes little to the commercial bottom fish catch in the Hawaiian Islands. During 1961-70, the annual catch fluctuated between 212 and 1,680 kg and averaged 764 kg.

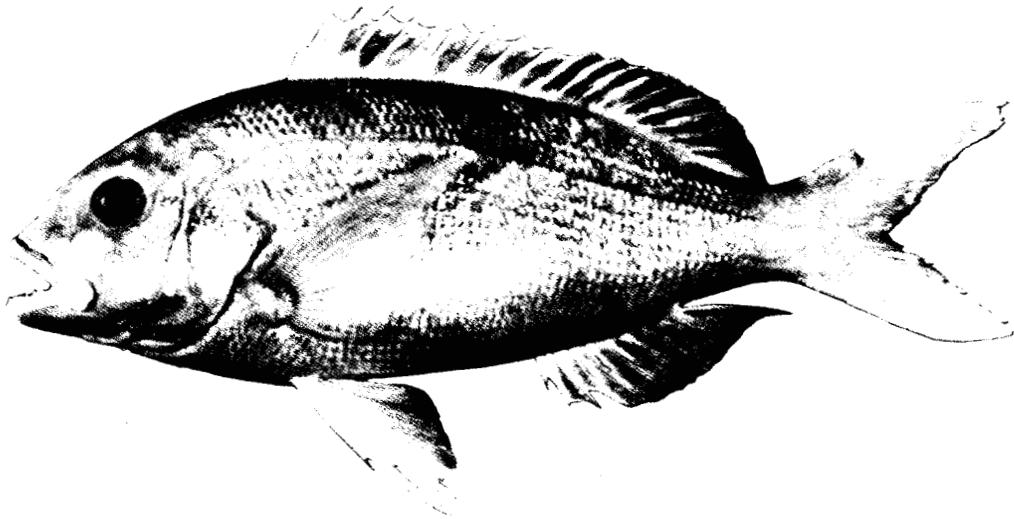


Figure 66.—*Pristipomoides zonatus*.