

PARASITIC ULCERATION OF THE STOMACH
 IN A HAWAIIAN MONK SEAL
 (MONACHUS SCHAUINSLANDI)

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The circumstances surrounding the death of an Hawaiian Monk Seal (*Monachus schauinslandi*), an endangered species, are of interest to those concerned with the management and survival of the species. During a stay by two of the authors (GCW and GHB) at French Frigate Shoals (lat. 23°45' N, long. 166°10' W) in the Northwestern Hawaiian Islands in December 1977, a sub-adult male seal died during the night of December 2 while ashore on Tern Island. The seal was 145 cm long (tip of snout to tip of hind flipper), and its greatest girth was 77 cm. There were no external injuries, and the animal was not emaciated (Fig. 1). The distinctive scar on one of the rear flippers resembled that observed 17 days previously by

one of us (GHB) on a seal of similar size and sex on Necker Island (lat. 23°35' N, long. 164°42' W). An autopsy of the seal performed on the beach revealed the presence of blood on approximately two-thirds of the serosal surface of the stomach. The gastric mucosa was extensively ulcerated; at the site of each ulcer were clusters of nematodes (*Contracaecum* sp.) (Fig. 2). No other pathological changes could be identified.

Although *Contracaecum* has been reported to occur in Hawaiian Monk Seals (Chapin 1925, Kenyon and Rice 1959), the present note is the first report of an association between *Contracaecum* and gastro-intestinal ulcers in this species. On Necker Island, the seals make use of salt-water pools on a rock ledge, which at times become heavily contaminated with feces and urine. If the animal which died on Tern Island was indeed the same animal that had been seen on Necker, then its heavy infestation with parasites may have been related to the use of these pools, which may possibly contain the intermediate host. The green coloration of the dead seal's hair coat, presumably due to the presence of *Pringsheimiella scutata* (Kenyon and Rice 1959), is compatible with a period of time at sea, possibly in transit between Necker Island and French Frigate Shoals, a distance of 125 km. The question also arises whether the gastric ulceration and bleeding were directly or indirectly the cause of death of the seal. Keyes (1965) considered ascaroid infection to be a significant factor in the mortality of Northern Fur Seals. Examination of autopsy records



Fig. 1. Young monk seal prior to examination of internal organs.

Photo by George H. Balazs

of eight Hawaiian Monk seals that had been kept in captivity in Hawaii or in San Diego revealed that five of the animals had gastric ulcers. Four animals were reported to have parasites in the gut.

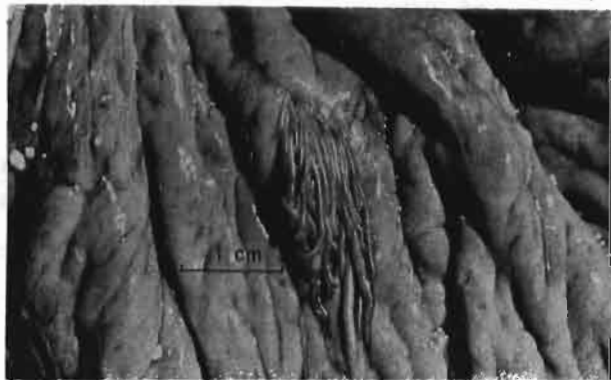


Fig. 2. Cluster of *Contracaecum* sp. attached to the gastric mucosa of a Hawaiian Monk Seal.

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