A SOUTHERN SEA LION, *OTARIA FLAVESCENS* (SHAW) FOUND IN PANAMA

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ABSTRACT

An adult male *Otaria flavescens* was killed in the Santa María River, Herrera Province, Panamá, in 1977. The skull and skeleton were salvaged and deposited in the Panamá Natural History Museum.

Méndez and Tovar (1970) reported a sea lion on the Pacific coast of Panamá, however, it was impossible to identify that specimen since only an incomplete skin was available for examination. Another sea lion has been found in Panamanian waters and has been identified as *Otaria flavescens* (Shaw). In addition to these records, at least two other individuals of otariid seals are known to have reached the Pacific coastal area of Panamá in this decade, but we were not able to examine them and the specimens were lost. It is possible that otariids are more frequent in our waters than records indicate.

At dawn, 15 February 1977, several inhabitants of Los Toritos, District of Santa María, Herrera Province, Panamá, found an adult sea lion swimming in Río Escotá, a tributary of the Río Santa María. The animal provoked great surprise and alarm in those persons and they immediately killed it. Such killing was unfortunate but perhaps understandable, and it reflects the need for conservation education in the country. One of us (Rodríguez), learned of the incident and visited the mentioned locality, which is about 220 km west of Panamá City, and was able to obtain the skull and skeleton. The fur and organs of the animal were badly damaged and it was not possible to save them. The specimen has been deposited in the vertebrate collection of the Museum of Natural History in Panamá City.

The key given by King (1954) was useful in identifying the animal. In order to have a more definitive determination we sent photographs of the skull (Fig. 1) to Dr. James G. Mead, Smithsonian Institution, Washington, D. F. Dr. Mead identified the specimen as an adult male *O. flavescens*. Pertinent measurements (in mm) are: interorbital width, 40.5; zygomatic width, 197.3; cranial width, 203.1; condylobasal length, 329.0; basilar length of Hensel, 297.5; rostral width, 100.5; length of upper canine series, 80.1.

O. flavescens is a member of the eared seal family Otariidae and belongs in the subfamily Otariinae, which consists of the sea lions. The other recognized subfamily, Arctocephalinae, is represented by the fur seals. As is typical on sea lions, *O. flavescens* has a blunt, upturned snout, a single layer of short, coarse, guard hairs covering a small amount of underfur, the fore flipper with the first digit longer than the second, and the hind flipper with outer digits longer than the inner. The adult male measures around 2450 mm, it weighs about 520 kg and has a thick neck mane which reaches the shoulders; the

adult female measures around 1950 mm and lacks the mane.

The normal distribution of *O. flavescens* includes Pacific and Atlantic coastal waters from the Galapagos Islands and Peru, around the southern tip of South America to the Falkland Islands, Uruguay and Brazil (Fig. 2). This animal prefers salt waters, but it sometimes ascends rivers. It is not migratory (Walker *et al.*, 1964). Sea lions may travel long distances from their rockeries or hauling grounds to feed (Fiscus and Baines, 1966), and they are subject to the influence of strong currents which may carry individuals away from their normal range. This may be why sea lions occasionally stray to the coasts of Central America. In addition to *O. flavescens,* the Californian Sea Lion, *Zalophus californianus* (Lesson), and the South American Fur Seal, *Arctocephalus australis* (Zimmerman), are likely to stray occasionally to the Pacific waters of Panama and other Central American countries.

It is possible that a stray Southern sea lion that comes to shore far from its breeding place could survive if it overcomes probable adverse factors such as harsh climatic changes and predation. Sea lions are adaptable and hardy animals capable of a long life if adequate food sources, as well as favorable physical features of the habitat and other biological requirements are available. It is also interesting to note that these animals are able to live in captivity and some times can be tamed.

In the event that individuals of both sexes reach the same habitat and are able to breed, it is probable that a new colony may be established over a period of time. Furthermore, the reproductive isolation mechanism that would evolve under different influences, in time might also initiate the process of speciation. The above considerations may help to explain a way of dispersal which may have contributed to the actual wide range of the species.

In our judgment, perhaps the establishment of the Southern sea lion on the Pacific coast of Middle America is not impossible, but this could only take place under the already mentioned circumstances and in an area completely isolated from man or not easily accessible to him. In any case, if such event occurs, it would be difficult to predict if protection could be afforded to the animals. The Southern sea lion is commercially exploited to certain extent in areas of Argentina, Uruguay and the Falkland Islands (King, 1964); however, the species doesn't seem to be threatened at the present time.

Acknowledgments

We are grateful to Dr. James G. Mead, Division of Mammals, National Museum of Natural History, Smithsonian Institution, Washington, D. C., for examining photographs of the skull of our specimen and confirming its sex and identity. We are also indebted to Dr. Charles O. Handley Jr., of the same institution, for his critical reading of the manuscript and his valuable remarks.

Literature Cited

Fiscus, C. H. and G. A. Baines. 1966. Food and Feeding Behavior of Staller and California Sea Lions. J. Mamm. 47: 195-200.

King, J. E. 1954. The Otariid Seals of the Pacific Coast of America. Bull, Brit. Mus. (Nat. Hist.) 2: 309-338, 3 plates.

_____ 1964. Seals of the World, Brit. Mus. (Nat. Hist.). London, 154 pp.

Mendez, E. and D. Tovar. 1970. A Sea Lion on the Pacific Coast of Panama, Carib. J. Sci. 10 : 107.

Walker, E. P., 1964. Mammals of the World, Vol. II, The John Hopkins Press, Baltimore, viii + 647-1500 pp.

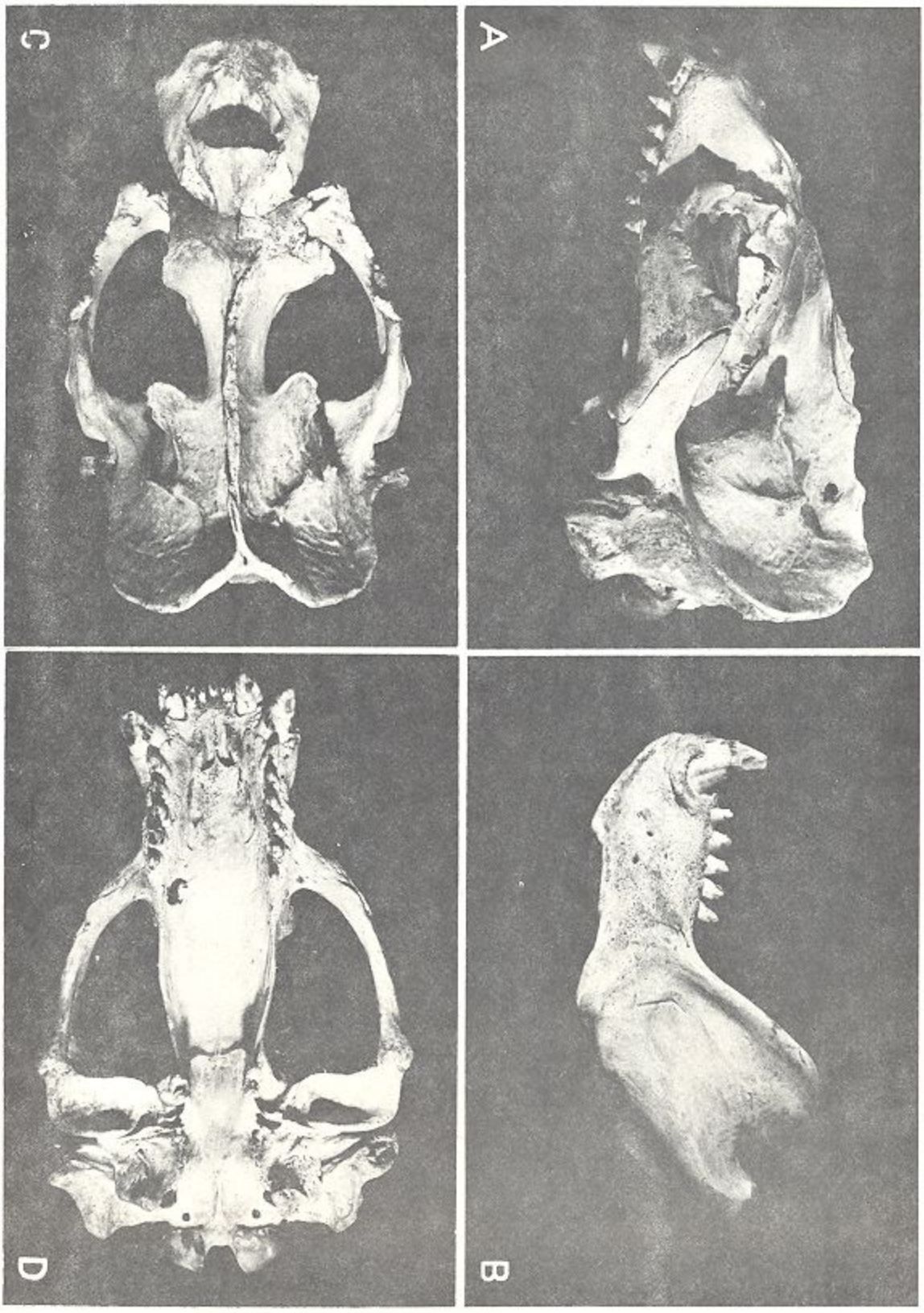

FIGURE 1.—Skull of adult male *Otaria flavescens* A) Left lateral view. B) Left lateral view of mandible. C) Dorsal view. D) Oclusal view.

FIGURE 2.—Distribution of *Otaria flavescens*