

## Observation of a Yearling Hooded Seal (*Cystophora cristata*) at Back Bay National Wildlife Refuge, Virginia Beach

Marshall J. Iliff

901 Crystal Spring Farm Road  
Annapolis, Maryland 21403

Edward S. Brinkley

9 Randolph Avenue  
Cape Charles, Virginia 23310

On 26 July 1996 we observed a seal swimming in a wave 2-3 m from shore on the beach at Back Bay National Wildlife Refuge, about 4 km south of refuge headquarters. We watched the seal as it swam slowly southward along the shore, parallel to the beach. It was easily visible through the clear water of the breaking wave for about 10 sec before it disappeared. We discussed the sighting and scanned the waves for another glimpse, finally refinding the animal 200 m to the south. At this point it was about 15 m offshore and only its head was visible. The seas were relatively calm, so the bobbing animal was easy to view and we were able to watch it for a full minute before it submerged. We did not observe it again, nor was it reported subsequently to the staffs of the refuge or of the adjacent False Cape State Park. The light conditions for the first sighting were excellent, as the sun was high and the animal was almost at eye-level. The lighting for the second sighting was less favorable, and the animal appeared mostly backlit. A Swarovski 10x42 binocular was used by Iliff and a Zeiss 10x42B by Brinkley.

The seal was approximately 1.5 m in length. Its dorsal surface was medium blue-gray without speckling or spotting, while its ventral surface was entirely whitish. The line of demarcation was quite crisp along the sides and was the single most noticeable feature of the specimen. As the animal disappeared, we noted its rather short hind flippers, which trailed directly behind it, not actively used in locomotion. In the second observation, we could see only its head in silhouette. Its cephalic profile was relatively flat: the forehead sloped evenly to the tip of the nose and was neither noticeably concave nor convex.

We were aware only of reports of harbor seal (*Phoca vitulina concolor*), gray seal (*Halichoerus grypus*), and, as an escapee, California sea lion (*Zalophus californianus*) (Rowlett, 1980) in the mid-Atlantic states, and suspected at the time that the animal would prove to be a young gray seal, although we were unfamiliar with any pelage that had so white a belly or so plain and bluish a dorsum. California sea lion was eliminated in the field, as that species shows an entirely dark ventral surface that does not contrast with the upperparts, and a sloping, concave head profile. The hind flippers of the animal were also clearly those of an animal in the family Phocidae and not those of any member of the Otariidae. From our experience with harbor seals in the North Atlantic and North Pacific, as well as on Hudson Bay (Brinkley), we were familiar with the pale, spotted and speckled dorsal surface, and concave profile of that species. We had seen gray seal on only a few occasions at that time, and while we had seen none patterned like this individual, we felt that the profile more closely resembled that species. After consulting several sources (e.g., Katona et al., 1993), we determined that no pelage of gray seal corresponded to the animal we observed and that the profile was not as bull-headed as would be expected for gray seal.

After consulting more literature (in particular, Reeves et al., 1992), we found that the immature pelage of hooded seal precisely matches the seal we observed at Back Bay. Young hooded seals, also called "bluebacks," are typically bluish-gray above and clean whitish below. No other species matches this pattern, and it is among the most distinctive of seals at this age. The immature pelage is retained for about 14 months (Katona et al., 1993). As most pupping occurs in

March (Bailey, 1946), this animal was probably just over a year old due to its relatively large size and immature pelage.

#### DISCUSSION

Hooded seals occur primarily in the pack ice of the Arctic and Sub-Arctic regions of the North Atlantic, with concentrations in three main areas: Iceland, Maritime Canada (including Labrador, northeastern Newfoundland, and the Gulf of Saint Lawrence), and the Davis Strait in the Arctic Circle (Katona et al., 1993). However, it is highly nomadic and strays regularly down the Saint Lawrence River to Montreal and to New England, where reports of "blueback" strandings have increased in recent years (Katona et al., 1993; Stevick & Fernald, 1998). In contrast to the harbor seal, which occurs in the mid-Atlantic Region primarily in winter, the hooded seal has been recorded south of Canada on a wide range of dates, though most southerly records are of yearlings, chiefly between December and March (Reeves et al., 1992).

The hooded seal that we observed at Back Bay National Wildlife Refuge apparently represents the second of three records for the species in Virginia waters. The first was found earlier in the year, on the evening of 28 February 1996, at 44<sup>th</sup> Street, in Virginia Beach, about 27 km north of the Back Bay refuge sighting (Messina, 1996a; date erroneous in Linzey, 1998). After preparatory rehabilitation work at the Virginia Museum of Marine Science in Virginia Beach, it was sent to the National Aquarium in Baltimore, where it was treated for several months and released in late May in Maine. When found, the male blueback pup suffered from pneumonia (Anonymous, 1996) and weighed 29 kg (Messina, 1996b).

In the following autumn, on 28 September 1996, another beaching of a young hooded seal was documented in Virginia, this time at Chincoteague National Wildlife Refuge, Accomack County. This female pup, nicknamed "Kiwi" by rehabilitators at the National Aquarium, weighed 40.5 kg when found (Scholz, 1997). The seal was transferred to a rehabilitation facility at Sea World of Ohio, in Aurora, Ohio. After regrowing its lost fur (as adult pelage) and attaining a weight of 114 kg over a ten-month rehabilitation period, the two-year-old animal was fitted with a satellite transmitter and released at Granite Point, Biddeford, Maine (Cohen, 1997; Ramer, 1997), along with a female harbor seal that had stranded at Ocean City, Maryland, in the same year. The hooded seal could be tracked by the public using internet web-

browsers at [http://whale.wheelock.edu/whalenet-stuff/trackmap\\_Kiwi.html](http://whale.wheelock.edu/whalenet-stuff/trackmap_Kiwi.html) (Associated Press, 1997a, b). Data available at this site show that the seal moved south past Cape Cod in the month of July to a position at 34.027° N, 71.830° W on 3 August 1997, about 150 km ESE of Cape Hatteras, North Carolina, in the center of the warm waters of the Gulf Stream. Linzey (1998) mentions another possible record from Accomack County in 1994, whereas Potter (1979) does not mention the species as having been documented in Virginia. On 4 September 2001, another yearling hooded seal, a male judged to be six to nine months old and weighing 22.5 kg, was recovered on Assateague Island, Virginia; it was brought to Virginia Beach for rehabilitation and eventual release (Clancy, 2001).

Hooded seals, along with gray, harbor, and harp seals, have become increasingly frequent visitors to beaches of New England and the mid-Atlantic states (Blake, 1997; Lau, 1997). An average of three beached hooded seals per winter has been documented in New Jersey in recent years (Tabachnik, 1997). Historically, from states bordering Virginia, the species is known from very few confirmed Maryland records (Cope, 1865; Mansueti, 1950; Paradiso, 1969), and, as of 1982, only two records from North Carolina (Lee et al., 1982), though there are recent confirmed reports of single yearling hooded seals stranded in September 1999 during Tropical Storm *Dennis* just south of the Virginia-North Carolina border (Clancy, 1999) and during July 2001 at Cape Point, Buxton (J. B. Patteson, in litt.).

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