

skimmer (nearly fledged) had not yet fully developed the capacity to produce a slit pupil. Wetmore's description of a "fully opened" pupil, cited above, applies to low light conditions (col. 2) but not to almost complete darkness (col. 1). Reduction in the height of the closed pupil to about half its height when fully opened suggests that a sphincter is part of the iris musculature in the skimmer.

Measurements of the maximum and minimum pupillary openings based on the drawings in Fig. 1 show that the closed pupil of the adult skimmer is only 5% of the area of the fully opened pupil, whereas that of the tern is about 20%, and of the juvenile skimmer about 10%. There was some variation in pupillary opening of the same individual in consecutive photographs as indicated by the dotted and solid outlines in B1. The smaller opening is not a residual reaction to a previous flash because the pupil was largest in the second of 3 flash pictures of the same eye taken at about one minute intervals at night. In the adult skimmer, the area of the closed pupil is about 10% of the area of the smaller opening in B1. We are not certain that the pupils of the tern and juvenile skimmer were fully opened in our single pictures in column 1, but our measurements of sclerotic ring openings (57% of eye diameter in an adult skimmer, and 46% in a tern) suggest that the adult skimmer has a pupil that is relatively larger than that of a tern. It is interesting that the external dimensions of the eyeball of the female skimmer were slightly less than those of the much smaller tern.

In answer to the questions posed above, we found that (1) the Black Skimmer has a relatively larger maximum pupil size than that of a Common Tern, and (2) the adult skimmer effects a greater reduction in its pupillary area from darkness to bright light than does the tern. These features of the adult skimmer's eye may serve to enhance nocturnal vision in support of the bird's habit of feeding during even the darkest nights, and to protect the retina during daylight feeding and other activities in brilliant light. The relatively small eye of the skimmer may relate to its essentially tactile foraging method in which, unlike the tern, the skimmer rarely uses its eyes to locate individual prey.—RICHARD L. ZUSI AND DAVID BRIDGE, *National Museum of Natural History, Smithsonian Institution, Washington, D.C. 20560*. Received 8 Dec. 1980; accepted 21 July 1981.

Record of Movement of a Laughing Gull to Hawaii from New Jersey.—The Laughing Gull (*Larus atricilla*) has rarely been observed as an accidental migrant in the Hawaiian Islands. King (Seabirds of the Tropical Pacific Ocean, Smithsonian Institution, Washington, D.C., 1967) reported the species at sea, south of the Hawaiian Islands. Berger (Hawaiian Birdlife, Univ. Hawaii Press, Honolulu, 1972) recorded the collection of a specimen on Oahu by Eugene Kridler on 26 July 1968. During 1979 and 1980 however, several probable Laughing Gull sightings were made by various observers in Hawaii. One sighting of an immature bird, possibly a Laughing Gull or a Franklin's Gull (*Larus pipixcan*) was reported on the Puu O Kali, Maui 1979 Christmas Bird Count by Kepler and Kepler (Elepaio 40(10):139-141, 1980).

On 14 December 1979, an immature Laughing Gull was turned in by an unknown individual at a bird salvage station set up by the Hawaii Division of Forestry and Wildlife at Lihue, Kauai. The salvage station, one of 9 set up around the Island, serves as a collection point for hundreds of Newell's Shearwaters (*Puffinus puffinus newelli*) that injure themselves by flying into utility wires at night on Kauai's brightly lit highways and urban areas. Citizens cooperate annually by picking up fallen birds and turning them in at salvage stations. Several other injured bird species are turned in incidentally along with the shearwaters. The cooperating public reports the date and location of each bird picked up. The Laughing Gull turned in on 14 December 1979 was originally found near Ahukini, Kauai. It was emaciated and died shortly after being brought to the salvage station.

Of interest was the fact that the Laughing Gull was banded (USFWS 815-58831). Since it was an immature bird, there was a question as to whether it was a Laughing Gull or a Franklin's Gull. A band recovery report was submitted to the Bird Banding Laboratory and it was learned that the gull was *L. atricilla*. It was banded as a flightless juvenile on 19 July 1979 near Barnegat Light, New Jersey, by Joanna Burger and Shisler.

The Laughing Gull reported here was not only remarkable because of the abnormal east to west movement (approximately 8000 km), but also because the movement took

place in less than 5 months time. Various gull species have appeared in Hawaii as stragglers, but none have become established.

The Laughing Gull reported herein was banded during a study funded by the New Jersey State Mosquito Control Commission.—THOMAS C. TELFER, *State of Hawaii, Department of Land & Natural Resources, Division of Forestry & Wildlife, P.O. Box 1671, Lihue, Kauai, Hawaii 96766*, AND JOSEPH K. SHISLER, *Mosquito Control, Cook College, Rutgers University, P.O. Box 231, New Brunswick, New Jersey 08903*. Received 1 Apr. 1981; accepted 17 Aug. 1981.

A New Longevity Record for the Ruffed Grouse.—A banded female Ruffed Grouse (*Bonasa umbellus monticola*) shot on 31 December 1979, in Perry County, Indiana was banded as an adult on 30 September 1972 in Brown County, Indiana. She had been one of 35 birds transported 170 km S to Perry County in the fall of 1972. This grouse was at least 16 months old when banded, and at least 103 months old when shot. To our knowledge, this is a new longevity record for a Wild Ruffed Grouse.

Bump et al. (*The Ruffed Grouse, Life History—Propagation—Management*. The Holling Press, Inc. Buffalo, N.Y., 1947:360) reported the average adult wild Ruffed Grouse seldom lives beyond 3 years. Gullion (Loon 38:132, 1966) reported a 94-month-old wild male (*B. u. togata* or *B. u. mediana*) in Minnesota and a 91-month-old wild female (*B. u. monticola*) was reported in Ohio (Stoll and Davis, *Bird-Banding* 45:270–271, 1974).

We thank L. E. Lehman, Indiana Department of Natural Resources for critically reviewing this manuscript.—P. DECKER MAJOR, MAURICE C. REEVES, AND CARL H. EISFELDER, *Indiana Department of Natural Resources, Division of Fish and Wildlife, Forest Wildlife Headquarters, R.R. #2, Box 477, Mitchell, Indiana 47446*. Received 19 Mar. 1981; accepted 23 July 1981.

A Technique for Distinguishing the Age Classes of Adult Bank Swallows.—As part of a long-term study of Bank Swallows (*Riparia riparia*) in the Ellenville, New York area, we became interested in finding a means for distinguishing age groups of the adult birds. All adult Bank Swallows appear superficially alike and have previously been recorded as AHY (after-hatching-year) birds. Because of the widespread interest in population studies of this species in North America and in Europe, we knew that a way to distinguish second-year birds from older birds would be of value.

We examined plumage characteristics in newly captured and returning (previously banded) Bank Swallows. The extent of wear on the inner primaries was found to be a useful characteristic. When this was combined with the degree of skull pneumatization, we could accurately identify some birds as second-year (SY) birds and others as after-second-year (ASY) birds. Although this combination of traits places only about 30% of the adult birds in these 2 age classes, we describe it here because we believe it can be of use to other banders.

Inner primary wear.—In most swallows, there is a single molt that takes place after the fall migration (Roberts, *A Manual for the Identification of the Birds of Minnesota and Neighboring States*. Univ. of Minnesota Press, Minneapolis, 1955). However, in Purple Martins (*Progne subis*) the postnuptial primary molt of adults is often interrupted by the fall migration (Niles, *Condor* 74:61–71, 1972) and Mead (*Bird Study* 27:51–53, 1980) found the same to be true for small numbers of adult Sand Martins (also *Riparia riparia*) captured at early fall roosts in England. In both species a few of the inner primaries are molted while the birds are near their breeding grounds; molt ceases during migration, and the remaining primaries are molted on the wintering grounds. Juvenile Purple Martins, and presumably juvenile Bank Swallows, undergo their first primary molt in the spring just prior to their first northward migration.

Close examination of the primaries of our Bank Swallows at their breeding colonies suggests that they have a similar molt schedule. Some birds known to be at least third-year birds from banding, show 2 to 4 very worn inner primaries and unworn outer primaries. The contrast in wear in the 2 groups of primaries suggests that the postnuptial