

**Burrow digging techniques of Leach's Petrel.**—No descriptions of the digging techniques of nocturnal petrels or shearwaters have been published to my knowledge. On 22 June 1969 from 01:25 to 01:36, I watched through an infrared viewer a Leach's Petrel (*Oceanodroma leucorhoa*) digging a burrow in the breeding colony on Kent Island, New Brunswick. The petrel came down through the overlying spruce-fir canopy to the ground at 01:25 and walked approximately 3 m to a depression at the base of a small mound, passing under my observation platform en route.

Upon reaching the depression the bird alternated between two types of digging: 1) Rolling sideways to balance on one metatarsus and foot, it threw dirt behind it with rapid backward strokes of the other foot; after 10–12 strokes the bird changed sides and brought the other foot into use in the same manner (Figure 1a). 2) Lowering its weight onto the center of its breast and raising its folded wings and tail, it kicked backward with rapid alternating movements of both feet (Figure 1b). It made an estimated 15–20 successive kicks in each of two kicking bouts I watched, which threw the dirt about as far as 1 m from the burrow entrance. The bird used the first technique in the center of the depression and the second around its edges. It continued digging vigorously and without interruption until it took alarm at a squeak in the observation platform and flew off.

Thus petrels may employ different digging techniques, one for loosening the dirt and another for shoveling the loosened earth away from the burrow. I did not see

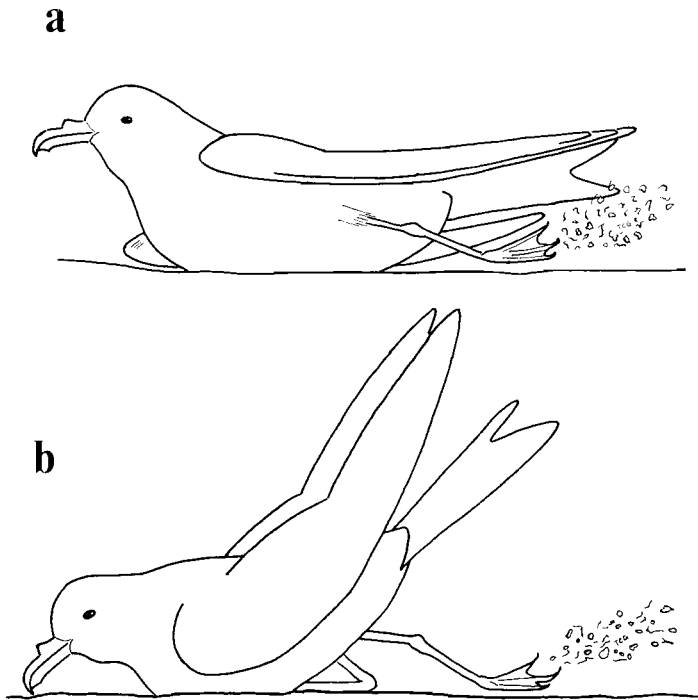


Figure 1. Postures of Leach's Petrel, sketched from memory, during two methods of burrow digging.

the bird use its bill to loosen dirt, but vertical holes at other incipient burrow sites strongly suggest that petrels may thrust the bill into the earth while excavating.

I thank John T. Emlen, Jr. for criticizing an earlier draft of the manuscript. This observation was made during a research period supported by the Frank M. Chapman Memorial Fund.—THOMAS C. GRUBB, JR., *Department of Zoology, University of Wisconsin, Madison, Wisconsin 53706.*

**Bronzed Cowbird taken in Florida.**—On 8 November 1968 in Gainesville, Florida, I removed a male Bronzed Cowbird (*Tangavius a. aeneus*) from a blackbird decoy trap containing a large number of Brown-headed Cowbirds (*Molothrus ater*). Oliver L. Austin, Jr., at the Florida State Museum, verified the species identification by noting the notched inner webs of the outer three primaries, a characteristic of the genus. The subspecific identification was made at the U. S. National Museum where the bird is now specimen number 531666. The subspecies normally ranges from southcentral Texas and the Yucatan Peninsula south through Central America to Panama (Check-list of North American birds, fifth ed., Baltimore, Amer. Ornithol. Union, 1957, p. 542). This Gainesville specimen apparently is the first Bronzed Cowbird taken in Florida. Alexander Sprunt, Jr., (Florida bird life. *In* Addendum to Florida bird life, New York, Coward-McCann, 1963, p. 18) lists three photographed sightings at Sarasota, Florida, in April 1962.—RAYMOND E. MATTESON, *U. S. Bureau of Sport Fisheries and Wildlife, Patuxent Wildlife Research Center, Substation, Gainesville, Florida 32601.*

***Oceanodroma tethys kelsalli*, new to North America.**—The first known North American mainland specimen of the Peruvian race of Galápagos or Wedge-rumped Petrel, *Oceanodroma tethys kelsalli* Lowe, was found alive on 21 January 1969 in the Carmel, California back yard of Mr. and Mrs. John S. Stanton, approximately one quarter mile inland from the Pacific Ocean. The bird, a female, remained alive throughout the day but died in the evening. A period of intensive stormy weather, reported to have reached from the mainland to the Hawaiian Islands, preceded the event.

Robert Cushman Murphy of the American Museum of Natural History confirmed the identification, pointing out that the plumage indicated a bird of the year.

In 1938 (Auk, 55: 256, 1938) James Moffitt recorded 12 specimens of *O. t. kelsalli* collected some 175 miles west of the tip of Baja California on 22 July 1905. The A.O.U. Committee considered these too far offshore to be included in the Check-list. Moffitt suggested, calling attention also to a specimen taken about 40 miles off Acapulco on 22 September 1933, that this form might range regularly to Mexican offshore waters. A specimen of the larger, nominate race *O. tethys tethys*, from the Galápagos Islands, was recorded at Guadalupe Island by Lawrence M. Huey (Auk, 69: 460, 1952) and listed in the A.O.U. Check-list (1957: 24).

The present specimen fits perfectly with the description and measurements recorded by Murphy in "Oceanic Birds of South America." The concealed inner webs and shafts of the rectrices were white. The triangular tail covert patch was white with black feather shafts. The weight was 12 g with no subcutaneous fat. The iris was black. Measurements were: total length 137 mm, wing arc 121 mm, wing chord 119 mm, culmen 12 mm, tarsus 21 mm, tail 55 mm, mid-toe and claw 19 mm. The specimen (Figures 1, 2) will be deposited in the California Academy of Sciences.—VERNAL L. YADON, *Museum of Natural History, Pacific Grove, California 93950.*