owls have a heavy protective layer of feathers, showed that the quill had been driven in with some force. The size and shape of the quill suggested the probability of its having arisen from the porcupine's tail, a notorious defensive weapon. No search for additional quills was made.

Evidence that this particular owl had attacked other prey usually avoided by most predators was the strong skunk-smell of its plumage. The skunk (*Mephitis mephitis*), of course, is well known as a prey species of the Great Horned Owl.—KENNETH C. PARKES, *Laboratory of Ornithology, Cornell University, Ithaca, New York.*

Western Burrowing Owl in Michigan.—The Burrowing Owl (*Speotyto cunicularia*) has "on several occasions . . . been taken outside its normal range" (Bent, 1938. "Life Histories of North American Birds of Prey," Part 2, p. 396). There are several published records for it in Wisconsin (see W. C. Pelzer, 1941. *Passenger Pigeon*, 3: 91 and H. L. Orians, 1948. *ibid.*, 10: July, back cover). R. L. Patterson (1946. *Wilson Bulletin*, 58: 53) has even reported observing a Burrowing Owl flying from ship to ship at sea more than a hundred miles off the mouth of the Gulf of California.

On May 1, 1949, three miles northwest of Chassell, Houghton County, Michigan, Bourdo chanced to encounter a Burrowing Owl along a road. It was on the ground, in open, rather flat farmland. On being stalked it pulled itself erect, as if in an attempt to see the stalker more clearly. Typical of it was a 'pumping' or bobbing motion, particularly of the head. It uttered no sound. After 20 minutes of being observed on the ground it flew to the top of a fencepost about 50 feet away. When flying it held its long legs toward the rear so that they extended well beyond the tail. Standing on the fencepost, it watched Bourdo for some time. It seemed more curious than afraid. It permitted the car to approach slowly to within 15 feet before flying off.

The following day (May 2), we found the owl in almost the same place—standing on a corner fencepost looking out across the hayfields and pasture-lands. After collecting it, we searched in vain for a burrow of any sort. At the base of a fencepost 30 feet north of the spot at which we had shot it we found the fresh remains of a Masked Shrew (*Sorex cinereus*).

The owl proved to be a female. It weighed 183.5 grams. It was heavily infested with *Docophorus communis*, a common biting louse of passerine birds. The stomach contained 8 cc. of mud and food, of which 2.5 cc. were food. The food items were: 1 earthworm, 2 spiders, 4 carabid beetles, 1 unidentified lepidopteran, and remains of 1 unidentified hymenopteran. In the crop were the spinal column (18 mm. long) and a few attached ribs of an unidentified small vertebrate.

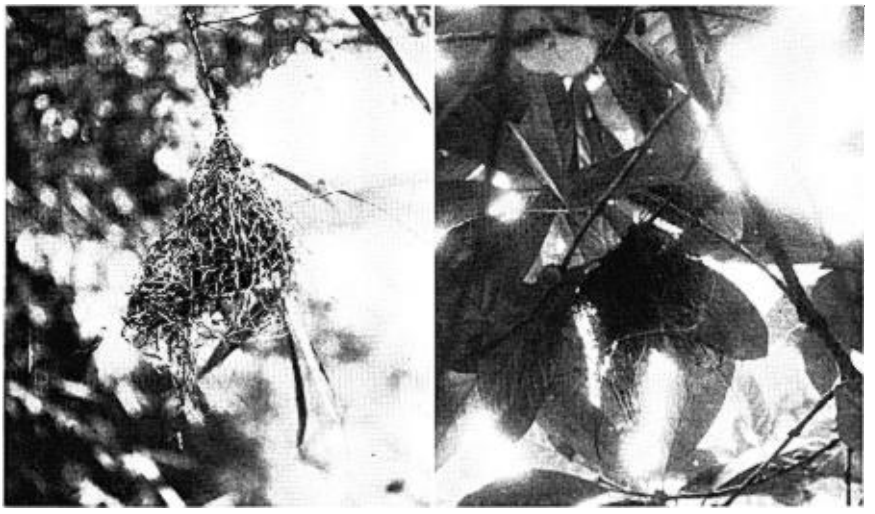
The Burrowing Owl specimen is now No. 118,163 in the collection of the Museum of Zoology at the University of Michigan. It is, according to Dr. J. Van Tyne, the first of the species to be recorded in Michigan. It has been identified as the western North American race, *S. c. hypugaea*. A photograph of it has appeared in a recent issue of *The Jack-Pine Warbler* (1950. 28: plate 2).—ERIC A. BOURDO and GENE A. HESTERBERG, *Michigan College of Mining and Technology, Houghton.*

The nest and eggs of *Tolmomyias poliocephalus*.—The tropical New World flycatchers of the genus *Tolmomyias* are small and dull colored, resembling somewhat those of the much better known and more northward ranging genus *Empidonax*. They are, however, rather heavy-billed, in this respect resembling the species of *Rhynchocyclus*. Hellmayr (1927. Cat. Birds of the Americas, Part 5, pp. 273–293) gives all the species of the closely related genera *Tolmomyias*, *Rhynchocyclus* and *Ramphotrigon* the common name Flat-bill, a not very satisfactory appellation.

On July 31, 1949 I spent some time watching a pair of *Tolmomyias flaviventris* (Yellow-vented Flat-bills) building a nest about 1.5 meters above the ground in a coffee shrub near

Paramaribo, Surinam. The nest seemed to be nearly complete and only one bird was building, but the other bird often accompanied it to the nest. When these birds were not present, another small bird came to the nest, alighted on the twig supporting it, pecked until it took some fibres from it, and flew away. The small robber came back again and again, each time taking nest material and always disappearing in the same direction. I was able to trace it and found the beginning of a nest—a few fibres hanging loosely on a twig of a small coffee shrub about 30 meters away.

On August 1 the nest of *T. flaviventris* was in a deplorable state. Much of the material was gone, especially the fine fibres by which it was attached to the twig. On the other hand, the nest of the robber had grown considerably, but I did not see the bird. Next day the last remnants of the nest of *T. flaviventris* disappeared. On August 8 the nest of the still unknown robber seemed to be nearly complete. It was a pouch of typical *Tolmomyias* shape, with entrance below at the side. Just beside it, on the same twig, was a nest of wasps. The presence



Nests of *Tolmomyias flaviventris* (left) and *T. poliocephalus*. Photographed respectively on June 15, 1947 and August 12, 1949 near Paramaribo, Surinam, by F. Haverschmidt. In each nest the entrance is at the lower left.

of these insects made examination of the bird's nest rather risky. There were still no eggs on August 12 although the bird left the nest on my approach.

On August 19 I collected the bird when it left the nest. It proved to be a female *Tolmomyias poliocephalus* (Gray-crowned Flat-bill), a species found about as commonly as *T. flaviventris* in the coastal area of Surinam. I have found it common also in the interior, on much drier, sandier ground, in woods bordering the savannas. In this interior habitat I have never found *T. flaviventris*.

Nothing in the extensive synonymy of *T. poliocephalus* as presented by Hellmayr (*op. cit.*, pp. 282–284) indicates that the nest and eggs of the Gray-crowned Flat-bill have been described. Nehrkorn (1910. Katalog der Eiersammlung, Berlin) does not describe them. The eggs are not in the collection of the British Museum (Oates and Reid, 1903. Cat. Coll. Birds' Eggs in the British Museum, Vol. 3, London) or in the large Penard oölogical collection from Surinam (Hellebrekers, 1942. *Zoologische Mededeelingen*, 24: 260). The nest was retort-shaped with an entrance-tube below the bottom proper. It was suspended from the middle of the

branch and not at the extreme end of it. It was made of fine fibres and dry grasses and had no lining. The 2 eggs, which rested on the fine fibres of the bottom, were fresh, so perhaps the clutch was not yet complete. Their weight was 1.80 and 1.98 grams. They measured 18.4 × 13.2 and 19.1 × 13.4 mm. In ground colour they were creamy white (dead white after blowing). They were marked all over with small reddish spots and blotches. These markings were larger and more numerous at the larger end.—FR. HAVERSCHMIDT, *P. O. Box 644, Paramaribo, Surinam, Dutch Guiana.*

Behavior and habitat of *Thryophilus leucotis* in Central Panamá.—On July 15, 1950, in a damp thicket in the Juan Franco suburb of the city of Panamá, I observed an adult Buff-breasted Wren (*Thryophilus leucotis galbraithii*) feeding an almost full-grown, but still stub-tailed, young bird. Another adult wren was singing close by. For several minutes the adult which I was watching proceeded to work over the top of the young bird's head and back with its bill, as if searching for vermin or preening the feathers. While I had often watched monkeys busy with their social grooming, and seen birds picking ticks from the bodies of mammals, this particular form of bird behavior was new to me.

Thryophilus leucotis is a South American species which reaches its northern limit in central Panamá. In western Panamá and elsewhere in Middle America it is replaced by various forms of the closely related, and very similar, *T. modestus*. The most striking point of difference between the two species is this: in *leucotis* the wing-barring is sharp and black, in *modestus* it is vague and obsolescent. The two birds are so similar morphologically that some ornithologists would doubtless consider them conspecific but for the overlapping of their ranges in central Panamá. In this narrow zone of overlap there appears to be some tendency toward ecological segregation: *leucotis* prefers the more humid thickets, particularly those near water, *modestus* the drier, more open areas, near houses. At the Pacific coast locality mentioned above I heard a singing individual of each species within a hundred yards of each other, one in a wet thicket near a small stream, the other in a dry thicket on an open hillside. Similarly, on the humid, and formerly forested, Caribbean slope of the Canal Zone, *leucotis* has been recorded at the edge of small openings in heavy woodland (e.g., that on Barro Colorado Island), while *modestus* is found along roadsides and in the more extensive clearings. In western Panamá, beyond the range of *leucotis*, *modestus* is often noted in wet tangles and along river borders.

Both species indulge in antiphonal singing and utter a variety of loud, emphatic, whistled phrases which, though similar in basic character, are, according to my experience, sufficiently different in pattern to be distinguishable. *Leucotis* tends to end its phrases with a downward slur or drop in pitch, while *modestus* usually favors a rising or sustained *ee* as the final sound.—EUGENE EISENMANN, *Linnaean Society of New York, 11 Broadway, New York 4, New York.*

Some Remarks on West Indian Icteridae.—In his stimulating article, "Convergent evolution in the American orioles" (1950. *Wilson Bulletin*, 62: 51–86), Beecher suggests that two phyletic lines (*Icterus* and "*Bananivorus*") have arisen from "opposite ends" of the genus *Agelaius*. Thought provoking though this concept may be, certain of Beecher's statements relating to West Indian forms appear to me to be open to criticism.

Beecher is evidently of the opinion that *Agelaius* and "*Bananivorus*" entered the West Indies through Cuba from Honduras. He states (p. 59) that "*A. humeralis* may have reached Cuba from the ancestral *thilius* stock of Central America as a typical marsh-dweller when it [Cuba] was emergent in the Early Pliocene." Now, most students of West Indian natural history believe that the majority of species that reached the Antilles from Central America entered the region mainly via Jamaica, an island not shown on Beecher's map (p. 62) depicting evolution in the "*Bananivorus*" group. Jamaica is a "key-island" in any such discussion. The fact that neither "*Bananivorus*" nor *Agelaius* now inhabits this island is of no