



FIG. 2. Principal components of Great Egret Snap display. From starting position (A), scapular feathers are erected as the bill is lowered (B). The neck feathers are then erected, heel joints rapidly bent, and the mandibles snapped together (C).

made during the course of a study supported in part by grants from the Frank M. Chapman Fund of the American Museum of Natural History and the National Audubon Society.—DONALD A. McCORMON, JR., *Department of Zoology, North Carolina State University, Raleigh, North Carolina 27607. Accepted 24 December 1973.*

**Probable predation by Swainson's Hawks on swimming spadefoot toads.**—Swainson's Hawk (*Buteo swainsoni*) captures both invertebrate and vertebrate prey, mainly insects and smaller mammals (Brown and Amadon, *Eagles, Hawks and Falcons of the World*, vol. 2, McGraw-Hill, New York, 1968; Bent, *Life Histories of North American Birds of Prey*, Part 1, Dover Publications, New York, 1961; Craighead and Craighead, *Hawks, Owls and Wildlife*, Dover Publications, New York, 1969). At least occasional captures are also made of birds and herptiles (McAttee, *Food habits of common hawks*, U.S. Dept. Agric. Circ. 370, 1935). All of these items are known to be taken on the ground or in the air. Our field observations show that flying *B. swainsoni* probably also captures adult plains spadefoot toads (*Scaphiopus bombifrons*) from the surface of open water.

Spadefoot toads are sporadic breeders, their appearance being dependent upon occasional heavy rains (Bragg, *Gnomes of the Night, the Spadefoot Toads*, Univ. Penn. Press, Philadelphia, 1965). Except for such normally brief periods, these animals are

relatively unavailable to avian predators. Two groups of chorusing spadefoots were observed from 16:00 to 17:00, on 12 June 1973, in a pond on each side of State Route 94, 0.5 km east of Punkin Center, Lincoln County, Colorado. This region is a shortgrass prairie now grazed by cattle. Chorus group 1 was in a temporary pond about 0.5 hectare in area and 1 m deep, and chorus group 2 in another such pond of about 1 hectare and over 1 m deep.

Our attention was first attracted to the toads by four Swainson's Hawks which were flying around the pond site of chorus group 1. The birds were obviously capturing some kind of prey, using two fishing techniques. One involved a slow, relatively shallow descent over the pond, extending the talons several cm into the water, picking up some small object, and flying off to land with it either on the shore or out on the prairie. The birds then proceeded to rip at the object and consume it. On one occasion, a hawk dropped into very shallow water and pummeled a prey item with its talons. We heard spadefoots calling at this site and suspected the hawks were capturing them. We investigated the ponds, causing the hawks to fly away; we could find no remains of the prey nor see toads in the water.

Chorus group 2 was then heard and we proceeded to it. There were seven *Buteo swainsoni* at this pond, fishing in the same two ways described earlier. The toads in this chorus group were clearly visible, floating in the middle of the pond as they called. The hawks were clearly seen to pick up and carry off toad-sized objects (five toads collected from pond 2 ranged in snout-vent length from 51 to 58 mm). Again, upon our approach the hawks flew away. We could find no remains of prey except for what was apparently a partly dried stomach of a toad-sized vertebrate.

While evidence that the hawks were capturing toads is largely circumstantial, our observations are strongly suggestive of this behavior. In addition, the ponds are temporary, hence, the hawks were not feeding on fish or some other aquatic prey. We also noted that adjacent ponds, which lacked chorusing toads, did not have hawks active around them.—OWEN J. SEXTON, *Department of Biology, Washington University, St. Louis, Missouri 63130*, and KEN R. MARION, *Department of Biology, University of Alabama, Birmingham, Alabama 35233*. Accepted 19 November 1973.

**A specimen of *Larus glaucescens* from Hudson Bay.**—On 1 June 1964 I collected a Glaucous-winged Gull (*Larus glaucescens*) from a flock of several hundred Herring (*L. argentatus*), Thayer's (*L. thayeri*), and a few Glaucous (*L. hyperboreus*) Gulls at a garbage dump at Fort Churchill, Manitoba. The specimen (Univ. of Michigan Museum of Zoology no. 211,531) is an immature female, apparently in second alternate plumage. Its measurements (in mm.) are: exposed culmen, 54.4; depths of bill at base, 18.2; depth of bill at gonyx, 19.3; wing (chord), 420; tail, 175; tarsus, 66.5. The weight was 1140 g, with little subcutaneous fat.

Because of the specimen's pale brownish primaries and rectrices, as well as geographic considerations and associated species, I originally identified it as an immature of *L. thayeri*. At that time I had had no prior experience with that species, the immature plumages of which have never been described in full.

The immature plumages of *L. glaucescens* are closely similar to those of *L. thayeri*, but the following characters allow the correct identification of the Fort Churchill specimen. One, the primaries and rectrices are pale grayish brown and essentially concolor with the wing coverts, mantle, and general body coloration; in *thayeri* the primaries are usually dark brown and contrast rather sharply with the mantle and body coloration.