second record tends to validate Brüggemann's specimen and locality. Thus *C. m. orru* must be presumed to occur in north Celebes. Why it should be so rare in that well-worked locality is an interesting question. Perhaps the strong competition of *C. enca celebensis* is the answer, or perhaps it is merely a straggler to the island from the western Moluccas.—S. DILLON RIPLEY, *U. S. National Museum, Washington, D. C.*

Seasonal changes in color of the gape of male Purple Finches.—I have looked through many bird books and have yet to find any comment on the changes in color of the skin of the gape in male Purple Finches. I have many Purple Finches here in spring, summer, and fall; and a few now and then in winter, and have banded many thousands; consequently I have been able to check the color at all seasons.

In winter the skin of the gape is dull brownish. It then gradually brightens and becomes yellowish, later changing to orange. The orange gradually reddens until, shortly before molting time, the skin is quite bright red-orange and in some cases becomes a bright blood-red. After the molting season the color gradually works back until, late in November or early December, it is back to the dull brownish of winter. Crimson males are not so bright in the fall as in the following spring. The reason is that the new feathers after molting have whitish barbules but, by wear, these are mostly removed by spring and consequently the reddish color of the feathers looks much brighter. If any reddish feathers are lost and new ones replace them, the new ones will not be red if at the time of growth of the new feathers there was no red showing in the skin of the gape. I believe this is the reason that so many crimson males are found in the spring showing a few yellowish-brown or olive-brown feathers. By checking the color of the skin of the gape you can tell how bright the birds will be in the spring. The first sign that a brownish bird is a young male of the previous year and not a female is the appearance of red in the skin of the gape.—M. J. MAGEE, *603 South St., Sault Ste. Marie, Michigan.*

Starlings and woodpeckers.—Presumably a search through the literature would disclose many specific instances of damage by Starlings to our native bird population, but I do not recall having noted much more than casual reference to it. How serious a competitor is the Starling, to just which of our birds in different sections, and what are its methods?

Starlings are, of course, abundant at all times of the year in the suburbs of Baltimore, where I live. In food habits they are highly beneficial to me personally. In pairs they search the lawns for cutworms, and in flocks they deploy through the longer grass of the meadow, to my advantage. I raise nothing that they damage.

Close to my house are two large silver maples with dying stubs, handy for observation from living room, dining room, bed room and bath. In one or the other of these trees a pair of Flickers has endeavored to nest for the last five years, and a pair of Downy Woodpeckers for three. The usual procedure is for the Flickers to start an excavation at a height of some 30 feet, but before the hole is completed a pair of Starlings is often to be seen, early in the morning, on nearby twigs. When the nest is finished one of the Starlings enters the hole and remains more or less continuously. A Flicker will enter and after a space from a few seconds to a minute or more, emerge with the Starling clinging to it. The Flicker endeavors to fly off, but flutters half way to the ground before both birds

separate. Sometimes the Flickers give up easily, or again they will persevere for several days, but always the result is the same.

There are two natural cavities in one of these trees, but the Starlings prefer the nice new holes of the Flickers. One year Starlings nested in one of these natural cavities (often tenanted by a Screech Owl), occupied another year by a pair of red squirrels. During tenancy by the latter, the Flickers nested in the second cavity, which is too low to interest Starlings, anyway. The squirrels did not fancy such near neighbors, entered the nest, killed the male Flicker and dumped him out of the hole. The female had a new mate within two days, but before long the eggs were deserted.

Last year the Starlings did not molest the Flickers until the eggs were laid. I was reading in the living room when a Starling alighted on a pine branch nearby and dropped something white. Investigation disclosed that the bird was removing Flicker eggs, one at a time, and dropping them to the ground. I shot the Starling before all the eggs had been destroyed, but within a few days the stub blew down, breaking cleanly at the nesting cavity, and nothing more was seen of the Flickers.

These occurrences, however, do not show the Starling in its most diabolical rôle. The Downy Woodpeckers nest high in the most frequently tenanted of these two trees. They are quiet and exemplary neighbors, and the holes are so small that I am not certain that a Starling could even wedge its head into one. Nevertheless it is doubtful whether the downies have been permitted to rear a brood in the three years concerned. They are ignored by the Starlings until the young of the former are of respectable size. Then we are made aware, by an increasing tempo of outcries early in the morning, that the downies are greatly perturbed. The Starlings are close to the nests, hopping from twig to twig and peering in the hole. This continues, with increasing aggressiveness, for several mornings, but I have witnessed the climax only once. A Starling with something in its beak approached the hole and appeared to dangle it temptingly at the entrance for a moment, before giving a single mighty jab. This was repeated several times. Evidently it was trying to entice, with bait, a young downy within reach of a crippling blow by its beak.

The elimination of Downy Woodpeckers from the vicinity of Starling nests can be of no possible benefit to the latter. But the Starling is an aggressive and singularly successful type. In the latter rôle it is doubtless impatient of near neighbors of all sorts. The trait will prove to be hard on some of our native birds, and may likely prove critical for some of our woodpeckers.—A. Brazier Howell, *Department of Anatomy, Johns Hopkins University, Baltimore, Maryland.*

Nesting of the Eastern Bluebird.—For the past ten years, Bluebirds (*Sialia sialis*) have been attracted to boxes expressly placed for them about my home at Ithaca, New York. These boxes were so designed that the top could be removed easily, thus facilitating a study of nest construction, eggs and development of the young. Since few attempts have been made to record the domestic activities of this species, and published observations are notable only for their paucity, it appears justifiable to record my notes.

Bluebirds usually arrive in central and western New York during late February or the first week of March. It seems likely that these are birds which are to pass the breeding months farther north, for, following their arrival and early departure,