and plumage of the adult bird. This comparison revealed that the thermal conductance of the 4 nests varied from 100 to 207% of the minimal conductance of the adult bird in a cold environment (MacMillen, 1974, Condor 76:62–69). As the thermal conductance of birds may very threefold, under different environmental conditions (Dawson and Hudson, Comparative Physiology of Thermoregulation, Vol. 1., Academic Press, New York, 1970), the thermal conductance of the nest and of the bird are of the same order of magnitude. We hope to obtain data on the thermal conductance of nests of other endemic Hawaiian birds, using the same technique, and to relate this information to the distribution and nesting habits of the birds.—G. C. WHITTOW AND A. J. BERGER, *Depts. of Physiology and Zoology, Univ. of Hawaii, Honolulu, 96822.* *Accepted 16 Apr. 1976.*

Spread of the Great-tailed Grackle in southwestern Louisiana.—The range extension of the Great-tailed Grackle (*Quiscalus mexicanus*) to the north and east was documented by Selander and Giller (Condor 63:29–86, 1961) and updated by Selander et al. (Condor 71:435–436, 1969). They indicated that the species occurred as far east in Louisiana as the Gibbstown-Bell City area of Calcasieu Parish. As recently as 1974, no further expansion eastward had been reported (Lowery, Louisiana Birds, 3rd ed. p. 548, La. State Univ. Press, Baton Rouge, 1974). We present evidence that a disjunct population of Great-tailed Grackles has existed unreported in the rice-growing region of south-central Louisiana for almost 2 decades. This area is more than 100 km ENE of the nearest known nesting sites in Calcasieu Parish (Fig. 1).

From 1960 to 1966, Ortego observed a small colony of Great-tailed Grackles in 2 live oaks (*Quercus virginiana*) near Ville Platte, Evangeline Parish. Local residents considered the noisy and conspicuous grackles to be fairly common summer birds, an indication that the colony had existed for some years. At about the same time, Guillory found a large colony of this species in a grove of live oaks at Mamou, also in Evangeline Parish. That colony existed until 1964.

When the Evangeline Parish colonies were discovered, *Q. mexicanus* was considered conspecific with *Q. major*, the boat-tailed Grackle, and as young birders both Ortego and Guillory identified the birds as Boat-tails. Some might question a retrospective identification of the birds as Great-tails. But no suitable Boat-tail habitat exists in the area, and in Louisiana, the Boat-tails breed only in or near coastal marshes (Lowery 1974). Ortego and Guillory observed the longer-tailed black males displaying on tall structures, and the smaller brown females feeding in nearby fallow rice fields. They both distinctly remembered that the males commonly used a call with "a clear ascending whistle." This provides conclusive evidence that the birds were indeed Great-tailed Grackles, for such a whistle is perhaps the most distinctive call of *Q. mexicanus* (Pratt, Birding 6:217–223, 1974).

Great-tailed Grackles were not reported again in the Louisiana rice country until 6 April 1972 when Pratt found 5 males near Ridge, Lafayette Parish and another male 1 km west of Maurice, Vermilion Parish. James A. Rodgers and Robert S. Kennedy (pers. comm.) sighted a flock of males and females near Kaplan, Vermilion Parish, on 13 May. In May 1973, Philip L. Bruner (pers. comm.) heard the distinctive whistle of a Great-tailed Grackle at Rayne, Acadia Parish. No nests were found in any of these areas.

In 1974, Great-tailed Grackles were again noted in Evangeline Parish. Guillory, Dennis H. Fontenot, and Dwight J. LeBlanc found the birds at LaHaye's Lake near

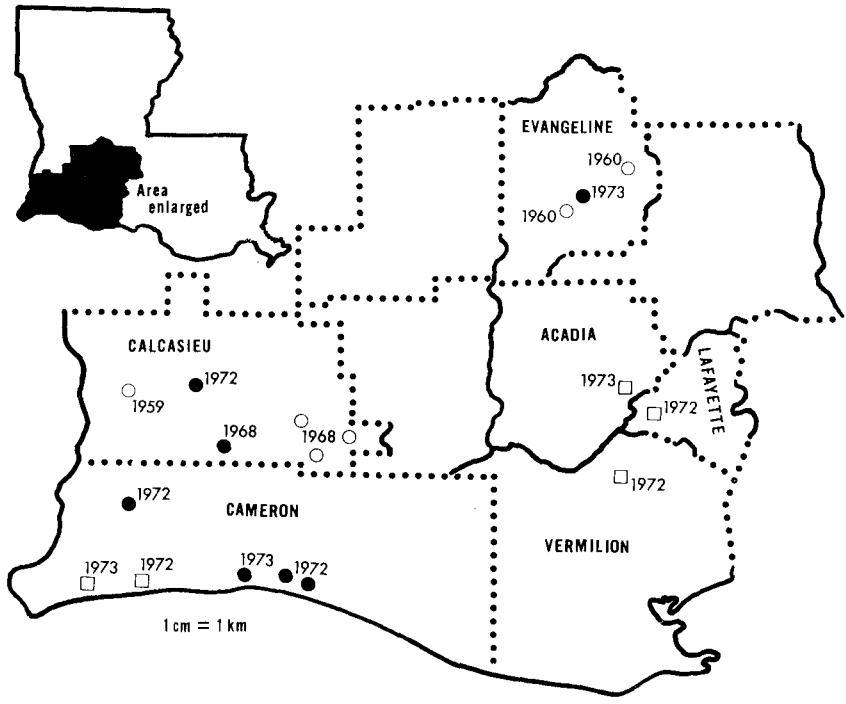

FIG. 1. Great-tailed Grackle distribution in southwestern Louisiana. Dates are for first observations. ● active breeding colonies 1975; ○ colonies abandoned 1975; □ breeding unconfirmed.

Redell, and 3 km SSW of Mamou. An unidentified local resident later reported that the LaHaye's Lake colony was present during 1973. At this colony on 6 September 1975, Ortego, Guillory, and Dennis Fontenot found 88 nests, a few of which appeared to be from the previous year. Seventy-five nests were built on 3 duck blinds. Such man-made structures are seldom used by Great-tailed Grackles at other localities in the state.

During the course of these and other observations, we have noted that Great-tailed Grackle colonies in Louisiana are extremely sensitive to harassment by man. Such a finding is surprising in light of the species' close association with human activities in other parts of its range (Skutch, pp. 334–350 *in* Bent, U.S. Natl. Mus. Bull. 211, 1958). Alvarez del Toro (Las aves de Chiapas, Gobierno del Estado de Chiapas, Tuxtla Gutierrez, 1971) points out that the birds maintain themselves in populated areas despite constant persecution, but such is not the case here.

Ortego reports that abandonment of the Ville Platte colony in 1966 followed the taking of some birds for food by local residents. At Mamou, residents considered the grackle colony, which increased in size annually, a nuisance and shot many of the birds. The colony site was subsequently forsaken.

Selander and Giller (1961) reported on a large mixed "*Cassidix*" colony near Vinton,

Calcasieu Parish. They studied the colony during 2 successive years. Pratt established in 1972 that the birds had left the Vinton site, and could not be found within 14 km of the area. No apparent habitat changes have occurred since the earlier study. In the second year of their study, Selander and Giller collected a large series of specimens at this colony. In another colony at Sabine, Texas, these investigators collected all resident males. That colony was no longer extant in 1972. Selander et al. (1969) gave specific localities of several grackle colonies in 3 areas: north of Gibbstown, west of Bell City, and near Grand Lake, Louisiana. The colony near Grand Lake, situated in a residential area where collecting would be unwise, was still active in 1972. The colonies at the other sites were far from homes in easily accessible areas and were probably the source of the 134 specimens that Selander et al. (1969) collected. Neither of these colonies were active in 1972 or 1973, nor were there any grackle colonies nearby.

In June 1972, Pratt collected a series of 11 specimens from a mixed colony of "*Cassidix*" grackles in a pine grove 1 km south of the Lake Charles Airport in Calcasieu Parish. In March 1973, a few grackles were using the trees as temporary resting places, but they did not nest there again.

We believe that Great-tailed Grackles may be equally sensitive to disturbance in other parts of their range, but simply have no alternative nesting sites in areas where the population is at the carrying capacity of the local habitat. In southwestern Louisiana, where much suitable habitat is available, the conspicuous Great-tailed Grackles are still uncommon birds.

We thank Aubrey and Elvin LaHaye for allowing us to visit their lake, and Robert J. Newman for reviewing the rough draft of this paper.—H. Douglas Pratt, *Museum of Zoology*, and Brent Ortego, *School of Forestry and Wildlife Management, Louisiana State Univ., Baton Rouge 70893*; and Harland D. Guillory, *Louisiana State Univ., Eunice 70535.* *Accepted 27 Sept. 1976.*

Poplar leaf-stem gall insects as food for warblers and woodpeckers.—In November 1975, as leaves began to fall from the native cottonwood trees (*Populus fremonti*) at our ranch in the Chiricahua Mountains of southeastern Arizona, we noted that most of them had a gall attached to the petiole. Each gall was 10–15 mm across and had a slight split in one side. We had already noted that we had unusual numbers of Audubon's Warblers (*Dendroica coronata*) and Ruby-crowned Kinglets (*Regulus calendula*) in those cottonwoods and began paying more attention to their activity. By mid-November, we realized that the warblers were feeding on the ground in a small area under the cottonwoods, apparently on some small insect. At the same time we noted that both the Ladder-backed Woodpeckers (*Picoides scalaris*) and Arizona Woodpeckers (*P. arizonae*) spent most of the day in the cottonwoods, hanging on tiny twigs and feeding among the leaves, rather than on the trunk and limbs as usual. It was obvious that the galls, both while on the tree and after falling to the ground, were providing an abundant source of food for warblers, kinglets, and woodpeckers.

On 28 November, I collected some of the gall-infested leaves and sent them to the Cooperative Extension Service of Cornell University, State University of New York. They were identified as being caused by 1 or 2 species of aphids, *Pemphigus populitransversus* or *P. populicaulis*, or both. I do not recall any published account of the value of these insect galls as a source of food for migrating and/or wintering warblers and woodpeckers. I am indebted to Dr. Bernard Travis and Carolyn Klass for identification of the galls.—Sally Hoyt Spofford, *Aguila-Rancho, Portal, AZ 85632.* *Accepted 2 May 1977.*