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## FIELD IDENTIFICATION OF GREAT-TAILED AND BOAT-TAILED GRACKLES IN THEIR ZONE OF OVERLAP\*

By H. Douglas Pratt

Among birders considerable confusion has followed the American Ornithologists' Union's recent recognition of the Great-tailed Grackle (*Cassidix mexicanus*) as a species separate from the Boat-tailed Grackle (*C. major*). Having recently completed a two-year study of these two birds where they occur together in southwestern Louisiana, I hope to be able to assist the field observer in differentiating these very similar-appearing species.

An important point to remember is that no current field guide is really useful for distinguishing the large grackles. The guides by Peterson (1947); Robbins, *et al* (1966); and Pough (1946) picture Boat-tails, but all of them show individuals of the yellow-eyed, Atlantic Coast race, which differs in several important respects from the Gulf Coast race that is most likely to cause confusion with Great-tailed Grackles in the field. Peterson's Texas (1963) and Western (1961) guides show a Boat-tailed male of the Atlantic Coast type with a female that has the plumage colors of a Great-tail and the eye color of a Boat-tail! All three recent Mexican guides (Davis, 1972; Edwards, 1972; Peterson and Chalif, 1973) recognize the Great-tailed Grackle as a species, but only E. P. Edwards has all of the descriptive information correct. Irby Davis' guide pictures the bird but again the eye color of the female is wrong. Peterson and Chalif repeat the same mistake in print. These errors only exacerbate the birder's problems.

Like so many other birds, the two species of large grackles vary geographically (Selander and Giller, 1961). Thus, the comments that follow apply *only* to the two forms that are likely to be found together along the Gulf Coast in Texas and Louisiana. Elsewhere, *only one species* normally occurs so the birder need not encounter much difficulty in identifying them.

### Size and Coloration: Males

Great-tailed Grackle males are larger and longer-tailed than Boat-tailed Grackle males, but size is not a very good field character due to wide individual variation. Though Boat-tails show mainly blue or bluish-green highlights on the back and breast, and Great-tails have a purple sheen in these areas, I have not found feather color to be very reliable. Both birds are purple-headed. The very best field mark is the color of the iris (page 219). Great-tailed Grackle males have clear golden-yellow eyes. Gulf Coast Boat-tails, on the other hand, have eyes that vary from brown to dull yellow. The most common variation shows a yellow periphery with a brown center. At a distance, such eyes appear dark. A good rule of thumb is that if there is any doubt that a given bird's eyes are bright enough to be those of a Great-tail, the bird is probably a Boat-tailed Grackle. A word of caution, both species

\*The first in a series of comprehensive field identification articles under the general editorship of Will Russell.

flash a bright blue-white nictitating membrane over the eyes during aggressive displays. This action can cause a Boat-tailed Grackle to appear momentarily yellow-eyed.

First-year males of both species present some further complications. Both have a plumage that is uniformly dull black, without the boat-shaped tail of the adult. The eyes of both species are dark brown at first, but over a period of months the adult eye color is attained (Selander and Giller, 1961) and by January most young males can be correctly identified on that basis. In the fall, it is best not to try to distinguish young males unless their vocalizations are heard.

#### Size and Coloration: Females

As with the males, female Great-tailed Grackles are somewhat larger and longer-tailed than Boat-tails but size is not a useful field character. Great-tail females are much darker than Boat-tails, being more olive below than the warm buff exhibited by Boat-tails. Boat-tail females are brown on the back with little iridescence, but Great-tails are dark brownish black on the back with a pronounced metallic sheen. Still, the best field mark is the eye color—pale yellow for Great-tails, dark brown for Boat-tails, with little individual variation. First-year females are paler than adults in both species and go through eye color changes like those described for the males. Young females are probably not identifiable in the fall.

#### Displays

During the nesting season, and at times during the rest of the year, the postures of Great-tailed and Boat-tailed males are distinctive and useful for field identification. Boat-tails characteristically fluff the feathers of the head and neck, often maintaining the feather erection even in flight. This action gives them a thick-headed appearance. Great-tails, in contrast, usually keep the head feathers slicked down and thus look thin-headed. The accompanying silhouettes (Fig. 1) illustrate the difference.

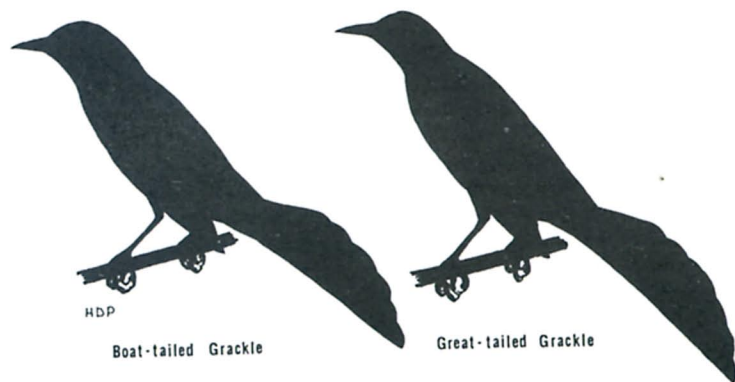
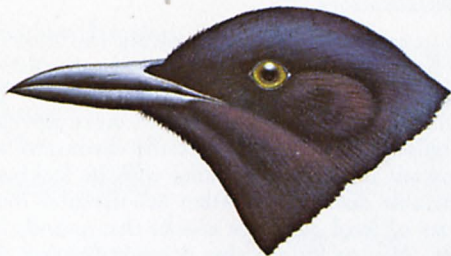
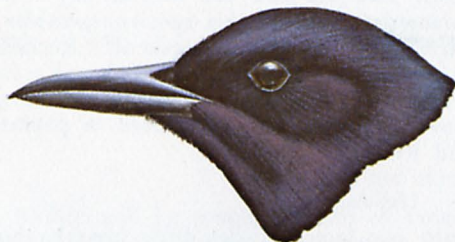


Fig. 1

Great-tailed Grackle (male)



Boat-tailed Grackle (males)  
3 variations



Great-tailed Grackle (female)



Boat-tailed Grackle  
(female)

PRATT  
77

Eye color of Great-tailed and Boat-tailed Grackles in their zone of overlap.

The courtship and territorial displays of males are similar but differ enough to distinguish the species (Selander and Giller, 1961). The most obvious display is the so-called "ruff-out" in which the tail is spread, the feathers are ruffled, the bill is pointed upward, and the wings are held out from the body. In this display, Great-tailed Grackles hold the wings at or below the plane of the back and only quiver them slightly if at all. Boat-tails, however, flutter the wings and, at the climax of the display, raise them above the back.

#### Vocalizations

Vocalizations are the most convenient means of locating and identifying the two large grackles in the field. Each has a large series of calls that are so characteristic that only a beginner is likely to misidentify the two. The calls of Great-tailed Grackles tend to be either more musical or more mechanical-sounding than those of Boat-tailed Grackles. An especially distinctive and frequently heard call of the Great-tail is a clear ascending whistle, lacking in overtones and audible at a considerable distance. Another call useful in locating colonies of the birds is a series of loud *clacks* or *clocks* that sounds like the ratchet of a toy machine gun. Not so far-carrying is a vocalization that resembles the sound of a limb breaking loose and crashing through the foliage (or, as some have facetiously suggested, the sound of a flushing toilet). Boat-tailed Grackle vocalizations are always harsh, but they are never as mechanical-sounding as some Great-tail calls. The most frequent "song" of the Boat-tail is a series of harsh notes: *jeeb-jeeb-jeeb*-etc. without any whistled quality. An unusual and characteristic call of this species resembles the sound of a coot pattering its feet on the water during takeoff. Recordings of a few calls of both species are available on the Peterson bird-song records. The Boat-tail is on the eastern album and the Great-tail (listed as Boat-tailed Grackle) is on the western one. Sonograms are presented in papers by Selander and Giller (1961) and Kok (1971).

#### Habitats

In Texas and Louisiana the two large grackles differ considerably in their choice of habitats. Boat-tails are birds of the coastal marshes, while Great-tails prefer agricultural land with scattered groves of trees. One should not expect to find the Boat-tailed Grackle far from marshes, but Great-tails are not so particular and may be found in almost any ecological setting with the exception of forests. In their zone of overlap, the two species often occur together and nest in mixed colonies. Such colonies are always in trees since Great-tails nest only there. Boat-tail colonies are also common in marsh vegetation.

Great-tailed Grackles are noteworthy for their frequent occurrence in towns. However, in cities such as New Orleans which are close to marshes, Boat-tails occur in parks and residential areas (Lowery, 1960). Careful observations should be made as the range of the Great-tail continues to expand eastward to see whether the larger birds will displace Boat-tails from such areas.

### SUMMARY OF GREAT-TAILED AND BOAT-TAILED GRACKLE DIFFERENTIATION

|                       | <u>Great-tailed Grackle</u>                                       | <u>Boat-tailed Grackle</u>  |
|-----------------------|---|---|
| Coloration (males):   |   |   |
| Head                  | Purple  | Purple  |
| Back                  | Purple  | Blue or blue-green  |
| Breast                | Purple to blue  | Blue or blue-green  |
| Eye                   | Golden yellow   | Dull yellow to dark brown   |
| Coloration (females): |   |   |
| Back                  | Shiny brownish black  | Brown; not shiny  |
| Breast                | Olive brown   | Warm buffy brown  |
| Throat                | Dull sandy yellow   | Golden buff   |
| Eye                   | Pale yellow   | Brown   |
| Tail length (males):  | Over 190mm (7.5 in.)  | Less than 195mm (7.8 in.)   |
|                       | Average = 8 in.   | Average = 7 in.   |
| Profile of male:      | Thin-headed   | Thick-headed  |
| Vocalizations:        | Slurred whistles, crackling sounds, hissing noises; Highly varied | Harsh <i>jeeb-jeeb-jeeb</i> -notes; no whistles or squeals. Not highly varied |
| Habitat:              | Farmland with scattered groves of trees                           | Marshes (except peninsular Florida)   |

#### Other Races and Hybrids

Birders will be presented with an even greater field problem should Great-tailed Grackles extend their range into Florida or to the Atlantic Coast as some have predicted (Selander *et al.*, 1969). The race of Boat-tailed Grackles that breeds from New Jersey to Georgia and winters partially in peninsular Florida is larger than the Gulf Coast form, and the males are yellow-eyed. Their vocalizations, however, are typical of the species and will provide the best means of separating these birds from Great-tails. In the race of Boat-tailed Grackles resident throughout peninsular Florida, the males have a definite purplish sheen to the back and breast but both sexes have dark eyes (Sprunt, 1954; Sykes, *pers comm.*).

The Great-tailed Grackles of southeastern Arizona, New Mexico, and western Texas are of a large race that does not differ in other respects from east Texas birds (Phillips *et al.*, 1961). In the far west, a small race of the Great-tailed Grackle has occurred in recent years (Phillips, 1950). In this race the females are very pale, almost white, on the throat and upper breast.

Both sexes have yellow eyes. Both the large race mentioned above and this small form have been recorded in the vicinity of Tucson in recent years. A possibility exists that this small form may prove to be a third full species of *Cassidix* so birders in California and Arizona should make careful notes as to color and vocalizations of any large grackles that are seen.

When Great-tailed Grackles invade Boat-tailed Grackle areas, hybrids sometimes occur (Pratt, 1973). Details of these hybrids will be published in a forthcoming paper.

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**ABA PELAGIC TRIP TO COX'S LEDGE, R.I.—NOVEMBER 10, 1974:**  
A birding charter (not a fishing trip) to offshore waters known for pelagic species from late summer to early winter. Timed to coincide with the fall movement of alcids along the Eastern Seaboard, the trip could also produce N. Fulmar, and should produce shearwaters, jaegers (including possibly Skua), as well as more routine species such as Gannet and Black-legged Kittiwake. The leaders will be Davis Finch and Will Russell. The vessel will be the 65-ft. *Captain Pete*, U.S.C.G. approved for 50 passengers. Chum will be furnished. Departure is 7 a.m., Sunday, November 10, 1974, returning about 5 p.m. You should be there ½ hour before departure. The point of departure is the State Pier in Galilee, R.I. There is ample parking there. Look for a large sign indicating the dock of companion boat, the *Nautican II*. Bring your own food. There is only a small snackbar aboard. The cost is \$16 per person. Make your reservation by making out a check to "Jane Plunkett—Trip Account" and mail to Jane Plunkett, 150 W. 82 St., New York, N. Y. 10024. Deadline is November 1, but due to the lateness of this announcement, some concession may have to be made. Request local motel information if needed.