Chapter 44

Evolutionary Aside 44.3--Species Recognition by Electrical Discharge

In some places in South America and Africa, many different types of closely related species of electric fish can be found in a single locality. How do they tell each other apart and avoid mating with members of the wrong species? Just as birds use their songs (and other species use their own means of communicating), electric fish species distinguish each other by the pattern of their electrical discharge. Each species has its own specific pattern of voltage and timing, and the fish can differentiate between even very similar discharges, allowing the fish to readily distinguish members of their own species from those of another species. This is an example of a behavioral prezygotic isolating mechanism, discussed in chapter 20.