

turity at a much larger size than males, the sex ratio can be altered (shifted upward in favor of males) by eliminating immature females that overlap mature males in size. Thus, Sexton (1959b) reported an "actual" male/female ratio of 1.00:1.49 for 604 *Chrysemys picta* of known sex in Michigan, but when he considered only sexually mature individuals, the ratio became 1.00:0.76, closely approximating the 1.00:0.78 ratio for a Minnesota population of the same species reported by Ream and Ream (1966), who distinguished juveniles from adult males and females throughout their study. Gibbons (1968h) reported a male/female ratio of 1.00:0.89 for a Michigan population of *C. picta*, concluding that the slight divergence from a 1:1 ratio resulted chiefly from the method of determining maturity in females. This may well be one reason for the widely divergent results of Nichols (1939a) and Stickel (1950) on the sex ratio of *T. c. carolina*.

Most *T. coahuila* in the samples were sexually mature, so the sex ratios given (not considering juveniles) may show an actual difference in adult population structure. Female *T. coahuila* in search of nesting sites during the reproductive period may tend to travel more often and farther than males, increasing the probability of their capture. The sex ratios themselves (Table 11) offer the only evidence for seasonal differences in activity.

DENSITY.—The study tract was divided into two sections: a primary section (main study area) of 11 marshes sampled regularly, and a secondary section of marshes surrounding the main area not included in daily sampling. Although the choice to limit the study area to a given series of marshes was arbitrary, considerable expanses of unfavorable dry habitat separated marshes in the main area from outlying ones. In some instances the distance from any marsh in the study area to an outlying marsh was less than the extreme distance between two marshes at opposite sides of the study area proper (about 600 m).

Population estimates were probably affected by turtles moving between main and surrounding marshes, but the extent of dispersal was difficult to estimate. The following factors suggest that recruitment of the population by immigration, or loss of emigration, caused negligible error in the census: (1) marshes are distinct communities with sharply-defined borders, and box turtles are largely confined to them; (2) although some overland movements do occur, salt grass communities in surrounding dry, often bare, zones are effective barriers to *T. coahuila* dispersal—the main study area is fairly well set off from other marshes by these unfavorable habitats; (3) recaptures of *T. coahuila* show that they have a tendency to remain in one marsh for long periods (more than 1 year in 41% of 34 recaptured turtles, and more than 1.5 years for