ianus) (Gee et al. 1981). In contrast, serum creatine phosphokinase (CPK) enzyme activities in the sparrows were 1.5 times those of fall-captive Mallards (Driver 1981), while lactate dehydrogenase (LDH) levels were about 3 times the highest values found in captive bobwhites, Peregrine Falcons (*Falco peregrinus*) (Gee et al. 1981), and Greater Indian Hill Mynas (*Gracula religiosa*) (Rosskopf et al. 1982). The exceptionally high SGOT and LDH enzyme levels in the sparrow may be attributed to drastic physiological changes which occurred when the birds were sacrificed since death-associated elevations of these enzymes have been previously reported in Mallards (Driver 1981). Elevations in LDH also have been reported to be caused by hemolysis (Rosskopf et al. 1982), although there was little evidence of hemolysis in the serum samples of the sparrows in this study. The markedly high CPK levels in the sparrows may have resulted from muscular damage during confinement and handling, since Driver (1981) found increases in CPK activities in captive and bait-trapped Mallards.

Although the results from avian blood analyses, especially serum enzymes, are difficult to compare when obtained from different laboratories (Gee et al. 1981), the values obtained in the sparrows in the present study are likely comparable with those reported by Driver (1981), Gee et al. (1981), Franson (1982), and Rosskopf et al. (1982). This is because the present results, as well as the results of those workers, were obtained by employing similar standardized autoanalyzer techniques. At the same time, there are a multitude of other factors, such as physical and environmental conditions, handling and sampling techniques, circadian and circannual rhythms, as well as sex, age, diet, and state of health of the birds, which could greatly affect the comparability of the data among these studies.

In spite of these and other limitations, it is apparent that the serum protein components, calcium, glucose, urea, and total cholesterol levels in House Sparrows are approximately near those previously reported in other more recently evolved passerine birds. Whether the exceptionally high bilirubin and uric acid levels present in the House Sparrow are typical of other passerines requires further study. It is probable that the elevated serum enzyme levels in the House Sparrow may not be typical and resulted from either disease or stresses associated with handling, sacrificing, and captivity of the birds. If our results also are representative of noncaptive House Sparrows, then they also imply that the levels of serum components previously reported in fowl, and other more primitive birds, are not necessarily typical of those found in the more recently evolved small passerine birds.

Acknowledgments.—We are grateful to the Newman Memorial County Hospital Laboratory for the use of their Abbott Analyzer. We thank Mrs. D. Schrader for running the assays. We also thank Dr. G. F. Shields for help in reviewing an earlier draft of this manuscript. This research was partially funded by a grant to JP from the Emporia State University Faculty Research Committee.—JOHN W. PARRISH AND MICHELLE L. MOTE, *Div. Biological Sciences, Emporia State Univ., Emporia, Kansas 66801.* *Accepted 15 June 1983.*

Wilson Bull., 96(1), 1984, pp. 141–142

Comments on Blancher and Robertson's "double-brooded Eastern Kingbird."—A note by Blancher and Robertson (Wilson Bull. 94:212–213, 1982) entitled "A double-brooded Eastern Kingbird," has prompted me to comment on its inculsion in a recognized, refereed journal. The authors describe a case of a supposed double brood in a pair of Eastern Kingbirds (*Tyrannus tyrannus*) (a species not known to be double-brooded), without presenting conclusive proof of the event. A pair of Eastern Kingbirds raised a brood of young, one (banded) of which fledged successfully, and then later a female was found incubating three eggs in a

nest 3 m distant from the other nest. The authors, by calculating time intervals and presumably by the proximity of the two nests, concluded that the same female was responsible.

Regardless of probability such a conclusion should only be based on incontrovertible proof (through marking) that the female in each case was the same bird. Several possibilities for error present themselves: the sexes are not separable in the field (except by behavior) and the female in question was apparently unbanded. A change in the title to "A possible double-brooded Eastern Kingbird" would have clarified the situation.—GEORGE K. PECK, *Dept. Ornithology, Royal Ontario Museum, 100 Queen's Park, Toronto, Ontario M5S 2C6, Canada. Accepted 25 Aug. 1983.*

Wilson Bull., 96(1), 1984, p. 142

Response to Peck.—The comment by Peck on our note "A double-brooded Eastern Kingbird" brings up a valid point. Since the female involved was not banded, we cannot be absolutely sure that the same female was responsible for both nests. Therefore, the title change he suggests might have been appropriate. However, we disagree with other statements in his comment.

He states that we based our conclusion that the same female was involved on the time interval between nests and the proximity of the two nests. He fails to mention that a banded fledgling from the first nest was present with the adults at the second nest, and that the two adults were seen with the fledgling during the four checks of the nest area between fledging of the first nest and discovery of the second nest. These observations strengthen our conclusion. He also states that "Several possibilities for error present themselves" yet he only refers to one valid possibility (unbanded female). The fact that the sexes are separable in the field only by behavior is irrelevant to the conclusion that the same female was involved in both nests.—PETER J. BLANCHER AND RALEIGH J. ROBERTSON, *Dept. Biology, Queen's Univ., Kingston, Ontario K7L 3N6, Canada. Accepted 21 Sept. 1983.*