zonts (Table I). The anti-RBC serum produced strong fluorescence with the EE forms observed in the 18- to 42-hr PI tissue sections (Table I; Figs. 3, 4, 6), but the earlier stages (14- and 16-hr PI) had a weaker fluorescence (Table I). The tissues fixed at 18, 20, and 24 hr PI produced approximately equal fluorescent intensity with both anti-SP or anti-RBC sera (Table I; Figs. 2, 3).

The later EE stages were recognized easily in the H and E stained sections (Fig. 8), and corresponded to those seen with immunofluorescence (Fig. 4). It was necessary to use the fluorescent coordinates in order to find the 24-hr EE stages in the H and E stained sections, because these schizonts were small and could be confused easily with nuclear and other cellular components present in the sections (Fig. 7).

The fluorescence of the EE stages seen in tissue fixed up to 30 hr PI with both types of antisera showed that these forms have antigen of both sporozoites and blood stages. The absence of interaction of the later EE schizonts (36–42 hr PI) with the anti-SP serum indicated a loss of sporozoite specific antigen in the liver stages, as they become more mature. Our observations corroborate and extend the findings of earlier investigators (Krotoski et al., 1973, loc. cit.) that EE forms can be detected with anti-RBC serum. They are also in agreement with other studies which showed that various developmental stages have common antigen(s) with both erythrocytic stages (Golenser et al., 1977, J Clin Exp Immunol **29:** 43–51), and a recently described sporozoite-specific surface antigen (Nardin and Nussenzweig, Nature, in press).

The use of the IFA technique, with the two types of sera tested, shows promise in detecting possible early developmental stages of EE schizonts in vitro. Because EE stages in 14–16 hr PI liver tissue show bright fluorescence with anti-SP serum, it may be possible to use this serum to stain EE stages earlier than 14 hr PI.

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Plasmodium (*Giovannolaia*) *pedioecetii* from the Lesser Prairie Chicken, *Tympanuchus pallidicinctus*

Stabler et al. (1973, J Parasitol **59:** 395) amended the name of the malarial parasite first described by Wetmore (1939, J Wildl Manage **3:** 361–365) from a sharp-tailed grouse (*Pedioecetes phasianellus*) to *Plasmodium pedioecetii*. They reported it from 2 of 24 Darwin's tinamou (*Nothura darwinii*) raised at the Wildlife Research Station in Ft. Collins, Colorado. Stabler and Kitzmiller (1976, J Parasitol **62:** 539–544) reported this *Plasmodium* from 49 gallinaceous birds of 6 species from Colorado. The greater (*Tympanuchus cupido*) and lesser (*T. pallidicinctus*) prairie chickens, though existing in Colorado, were unavailable for examination.

Through the kindness of Professor Charles A. Davis and two of his research assistants, Terry Riley and Randy Smith, from New Mexico State University at Las Cruces, and of Wildlife Biologist David F. Dvorak from the Texas Parks and Wildlife Department at Austin, blood films from numerous lesser prairie chickens from those two states were received. The New Mexico birds (29) were shot (a few were netted) in Chaves County just west of Caprock. Those from Texas (8) were killed by hunters

near Higgins, Lipscomb County. Two chickens from each state were positive for *Plasmodium (Giovannolaia) pedioecetii*, a 10.8% incidence in the 37 birds.

The four positive blood films bore all erythrocytic stages in sufficient numbers for identification of species. Three slides suggested chronic parasitemias, whereas the fourth had a fairly high parasite level. Here there was a ratio of 189 parasitized red cells to every 1,000 examined. Of 500 such parasitized cells, 426 contained one parasite, 67 had two, five had three, and one each contained four and five parasites, respectively, a total of 584 plasmodia in the 500 cells. Twenty-five mature gametocytes had a mean length of 9.2 μm and a mean width of 2.0 μm. Fifty mature segmenters presented a range of 6–14 merozoites, with a mean of 9.3.

This is only the second parasite to be reported from the lesser prairie chicken. The other was an eye worm (*Oxyspirura lumsdeni*) described by Addison and Anderson (1969, Can J Zool **47:** 1223–1227) from North American tetraonids. The lesser prairie chicken represents a new host record for *Plasmodium (Giovannolaia) pedioecetii.*

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A Hemoparasite Survey of Florida Lizards

From January 1970–June 1973, 1,616 Florida lizards were examined by thin blood smears for hemoparasites. Most slides were read twice: a brief, initial examination to detect heavy infections for possible experimental use, and a second, more leisurely examination 2–5 yr later to confirm initial results. The following species were examined: GEKKONIDAE—*Hemidactylus turcicus* (N = 2); SPHAERODACTYLIDAE—*Sphaerodactylus notatus* (8); IGUANIDAE—*Anolis carolinensis* (973), *A. sagrei* (103), *A. distichus* (1), *Sceloporus undulatus* (163), *S. woodi* (201); SCINCIDAE—*Lygosoma laterale* (75), *Eumeces egregius* (15), *E. laticeps* (22), *E. inexpectatus* (30), *E. fasciatus* (2); TEIIDAE—*Cnemidophorus sexlineatus* (13); ANGUIDAE—*Ophisaurus ventralis* (7), *O. compressus* (1).

Hemoparasites were found in only four host species. *Anolis carolinensis* was parasitized by *Plasmodium floridense* Thompson and Huff 1944 (12.7%) and *Schellackia* sp. (1.4%); *Sceloporus undulatus* by *P. floridense* (3.1%), *Schellackia* sp. (1.2%), and a *Hepatozoon*-type hemogregarine (1.8%); *Eumeces laticeps* (4.6%) and *E. inexpectatus* (3.3%) were each found parasitized once by a similar hemogregarine which possibly is conspecific with that found in *S. undulatus*. No trypanosomes, microfilariae or parasites of dubious nature were encountered.

The overall infection rate of *P. floridense* in *A. carolinensis* collected from Marion County northward (N = 652) was 8.6%, whereas in those from Hardee County southward, it was 24.0% (N = 279). Prevalence of *P. floridense* was highest in April in north Florida (12.8%) and in May in South Florida (38.7%). Data are inadequate to support further analysis. Infections were found in most counties sampled in peninsular Florida, from Big Pine Key in the Florida Keys westward to Torreya State Park on the eastern bank of the Appalachicola River, but no infected lizards were found west of the river where sampling was inadequate, with less than 100 lizards examined. Similarly, *Schellackia* was more common in the south Florida sample (2.5%) than in north Florida anoles (1.1%).

Jordan and Friend (1971, J Protozool, **18:** 485–487) identified the *Schellackia* species in *Sceloporus undulatus* of Georgia as *Schellackia occidentalis* Bonorris and Ball 1955. The