

December 1986

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Recommended Citation

Baumgartner, Donald L. and Kane, Andrea 1986. "Wood Ducks as Accidental Hosts of the Squirrel Flea, *Orchopeas Howardi* (Siphonaptera: Ceratophyllidae)," *The Great Lakes Entomologist*, vol 19 (4)
DOI: <https://doi.org/10.22543/0090-0222.1587>
Available at: <https://scholar.valpo.edu/tgle/vol19/iss4/9>

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**WOOD DUCKS AS ACCIDENTAL HOSTS OF THE SQUIRREL
FLEA, *ORCHOPEAS HOWARDI* (SIPHONAPTERA:
CERATOPHYLLIDAE)**

Donald L. Baumgartner¹ and Andrea Kane²

On 21 May 1985, two recently hatched wood ducklings, *Aix sponsa* (L.), brought to the McHenry County Wildlife Rehabilitation Center, Woodstock, Illinois, were inspected for ectoparasites. Both were found to be in weak condition and heavily infested with fleas, more than 10/bird. One bird perished within an hour of admission and the other succumbed the next day. A male and a female flea removed from the ducklings were subsequently identified as *Orchopeas howardi* (Baker) by Dr. R. Traub, Systematic Entomology Laboratory.

Orchopeas howardi is a Nearctic species, the majority of records coming from east of the Rocky Mountains (Traub et al. 1983). Two subspecies are known, one of which, *O. h. howardi* (Baker), is common in Illinois. Eastern gray squirrels and eastern fox squirrels of lowland and upland deciduous forests, respectively, are the major hosts of *O. h. howardi*. Occasional hosts include flying squirrels and red squirrels; a variety of other mammals has been reported as accidental hosts (Fox 1940, Hubbard 1947, Traub et al. 1983). Aquatic birds are rarely infested. This is the first report of wood ducks as accidental hosts.

The discovery of *O. howardi* on wood ducks in Illinois is not an isolated occurrence for other unpublished records are known from the National Museum Collection (R. Traub, pers. comm.). Since the nesting behavior of wood ducks and squirrels is similar, both nest in tree cavities, it is probable that in this instance the wood ducklings acquired the fleas from nesting material in a cavity formerly occupied by gray or fox squirrels.

When present in high numbers, as was found here, *O. howardi* may be detrimental to the health of birds. Under certain conditions they may be a potential hazard to humans also. *O. howardi* readily feeds on man and is an established vector of plague among rodents, resulting in population declines and perpetuation of the cycle within this reservoir (Traub et al. 1983). This flea has been found naturally infected with epidemic typhus and at times is common on flying squirrels, possible reservoirs of this rickettsia. Besides supporting flea development, birds may also transport fleas and their associated pathogens over long distances during their seasonal migrations. Further investigations are needed to determine the incidence of flea occurrence on birds and the bird's importance in the fleas' dispersion.

ACKNOWLEDGMENT

We thank Dr. R. Traub, Systematic Entomology Laboratory, IBIII, ARS, USDA, for flea identification.

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LITERATURE CITED

- Fox, I. 1940. Fleas of eastern United States. Iowa St. College Press, Ames.
Hubbard, C. A. 1947. Fleas of western North America. Iowa St. College Press, Ames.
Traub, R., M. Rothschild, and J. F. Haddow. 1983. The Rothschild Collection of fleas.
The Ceratophyllidae. Privately publ. Academic Press distributors, San Diego, CA.