

## NOTE

### A New Flea (Siphonaptera) Record for Mississippi, with Notes on Other Flea Records From the State<sup>1</sup>

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Records of fleas (Siphonaptera) from the state of Mississippi are sparse with just 11 species reported (Benton, 1980. An atlas of the fleas of the eastern United States. Marginal Media, Fredonia, NY xv + 177 pp.). Conversely, the flea faunas of adjoining Alabama and Tennessee have received more attention with 20 and 30 species documented, respectively, from these two states (Benton, 1980. Pfitzer, 1950. A manual of the fleas of Tennessee. M. S. Thesis. University of Tennessee. 103 pp. Sanford and Hays, 1974. Bull. 458, Ala. Agric. Exp. Stn., 42 pp.). In this note, a twelfth species of flea is recorded from Mississippi (the species also represents a new family record for the state) and, because one is not available elsewhere, a list of the fleas now known from Mississippi is presented.

Collection data for the new state flea record are as follows:

*Polygenis gwyni*. (C. Fox); 1 male, 4 females; ex juvenile male *Sigmodon hispidus* Say and Ord (cotton rat); Shepard State Park, near Pascagoula, Jackson County, MS; 23. iii. 1990; L. A. Durden. Specimens of *P. gwyni* have been deposited in the National Museum of Natural History, Washington, DC under accession number ENT-A-3873 (394984).

*Polygenis gwyni* is a common ectoparasite of cotton rats in the southern United States with previous records from Alabama, Arkansas, Florida, Georgia, Louisiana, New Mexico, North Carolina, South Carolina, Texas and (representing an accidental occurrence) New Jersey [Benton, 1980. Fox, 1940. The fleas of eastern United States. Iowa State College Press, Ames, 191 pp. Layne, 1971. Fla. Entomol. 54: 35-51. Lewis, 1973. J. Med. Entomol. 10: 255-260. Sanford and Hays, 1974. Smit, 1987. An illustrated catalogue of the Rothschild collection of fleas (Siphonaptera) in the British Museum (Natural History). Volume VII. Malacopsylloidea. Oxford University Press and the British Museum (Natural History). 388 pp.]. *Polygenis gwyni* has also been collected from *S. hispidus* in El Salvador and Mexico (Smit 1987).

The twelve species of fleas now known to occur in Mississippi together with their principal hosts are listed below. Host data are from Mississippi and adjacent states.

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## Family Pulicidae

- 1) *Echidnophaga gallinacea* (Westwood). Hosts: chickens [*Gallus gallus* (Linn.)], domestic dogs (*Canis familiaris* Linn.) and cats (*Felis sylvestris* Schreber), roof rats [*Rattus rattus* (Linn.)], Norway rats [*Rattus norvegicus* (Berkenhout)] and many species of native birds and mammals.
- 2) *Pulex simulans* Baker. Hosts: humans and a wide variety of domestic and native mammals.
- 3) *Ctenocephalides canis* (Curtis). Hosts: domestic dogs, wild canids and their ecological associates.
- 4) *Ctenocephalides felis* Bouché. Hosts: principally domestic cats and dogs but also opossums (*Didelphis virginiana* Kerr), humans and other domestic and wild mammals.
- 5) *Cediopsylla simplex* (Baker). Hosts: wild and domestic leporids (rabbits and hares).
- 6) *Xenopsylla cheopis* (Rothschild). Hosts: mainly commensal rats (*R. rattus* and *R. norvegicus*).

## Family Rhopalopsyllidae

- 7) *Polygenis gwyni*. Hosts: principally cotton rats but also opossums and numerous species of rodents.

## Family Ceratophyllidae

- 8) *Nosopsyllus fasciatus* (Bosc). Hosts: mainly commensal mice (*Mus musculus* Linn.) and rats.
- 9) *Orchopeas howardi* (Baker). Hosts: squirrels, especially *Sciurus carolinensis* Gmelin, *S. niger* Linn. and *Glaucomys volans* (Linn.).
- 10) *Orchopeas leucopus* (Baker). Hosts: field mice (*Peromyscus* spp.).

## Family Leptopsyllidae

- 11) *Odontopsyllus multispinosus* (Baker). Hosts: principally eastern cottontails [*Sylvilagus floridanus* (J. A. Allen)] but also other leporids and their ecological associates.
- 12) *Leptopsylla segnis* (Schönherr). Hosts: commensal rats and mice.

From this list, it is clear that many of the flea species documented from Mississippi are widespread parasites of domestic or commensal mammals and birds. Relatively few fleas have been collected from native mammals in Mississippi and no species of fleas typically associated with wild birds are known from the state. It is hoped that this note will encourage the collection of fleas (and other ectoparasites) from native birds and mammals in Mississippi and thereby increase our knowledge of this potentially significant fauna.

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