

***Neottialges (Pelecanectes) platalea* sp. nov. and other hypoderid mites (Acarina, Astigmata, Hypoderidae) from the spoonbill, *Platalea leucorodia* L.**

A. FAIN and B. R. LAURENCE

Institut de Médecine Tropicale Prince Léopold, Antwerpen B-2000, Belgium and London School of Hygiene and Tropical Medicine, London WC1E 7HT, England

Introduction

The phoretic hypopi or heteromorphic deutonymphs of hypoderid mites are found beneath the skin of birds. The new species of mite we describe here was found under the skin of the abdomen of a spoonbill, *Platalea leucorodia* L., which died in the London Zoo after 5 years in captivity. This mite is represented by the phoretic heteromorphic deutonymphs only. The adult mites corresponding to these nymphs are free-living and so far unknown, and are presumably to be found in the nest material of the host. The new hypopi were mixed with hypopi of two other species of Hypoderidae already described. All three species belong to the genus *Neottialges* Fain, subgenus *Pelecanectes* (Fain 1967, Fain and Laurence 1974). The new species belongs to a small group characterized by the presence of an entire genital median sclerite. This group so far contains four species. We give here a key to this group of species.

Key to the hypopi of the genus *Neottialges* subgenus *Pelecanectes* with an entire genital sclerite

- | | |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------|
| 1 Setae <i>d1</i> , <i>d2</i> , <i>d3</i> , <i>d4</i> and <i>l1</i> thin and short | 2 |
| At least the setae <i>d1</i> , and <i>l1</i> long or very long | 3 |
| 2 Tarsi IV with one very short and two long spines | <i>N. (P.) elani</i> Fain 1969 |
| Tarsi IV with three short spines | <i>N. (P.) apunctatus</i> Pence 1973 |
| 3 Setae <i>d2</i> and <i>d3</i> very short (15 μ) | <i>N. (P.) hawaiiensis</i> Fain and Amerson 1968 |
| Setae <i>d2</i> and <i>d3</i> much longer | 4 |
| 4 Setae <i>d1</i> and <i>d4</i> very long and subequal. Tarsus IV longer (96 μ) than tarsus III (87 μ) | <i>N. (P.) evansi</i> Fain 1966 |
| Setae <i>d4</i> much shorter (35-45 μ) and thinner than <i>d1</i> (130-140 μ). Tarsus IV much shorter (41 μ) than tarsus III (60 μ) | <i>N. (P.) platalea</i> sp. nov. |

Hypoderid mites from the spoonbill (*Platalea leucorodia* L.)

Three species of hypoderid mites have been found subcutaneously.

Genus **NEOTTIALGES** Fain, 1966

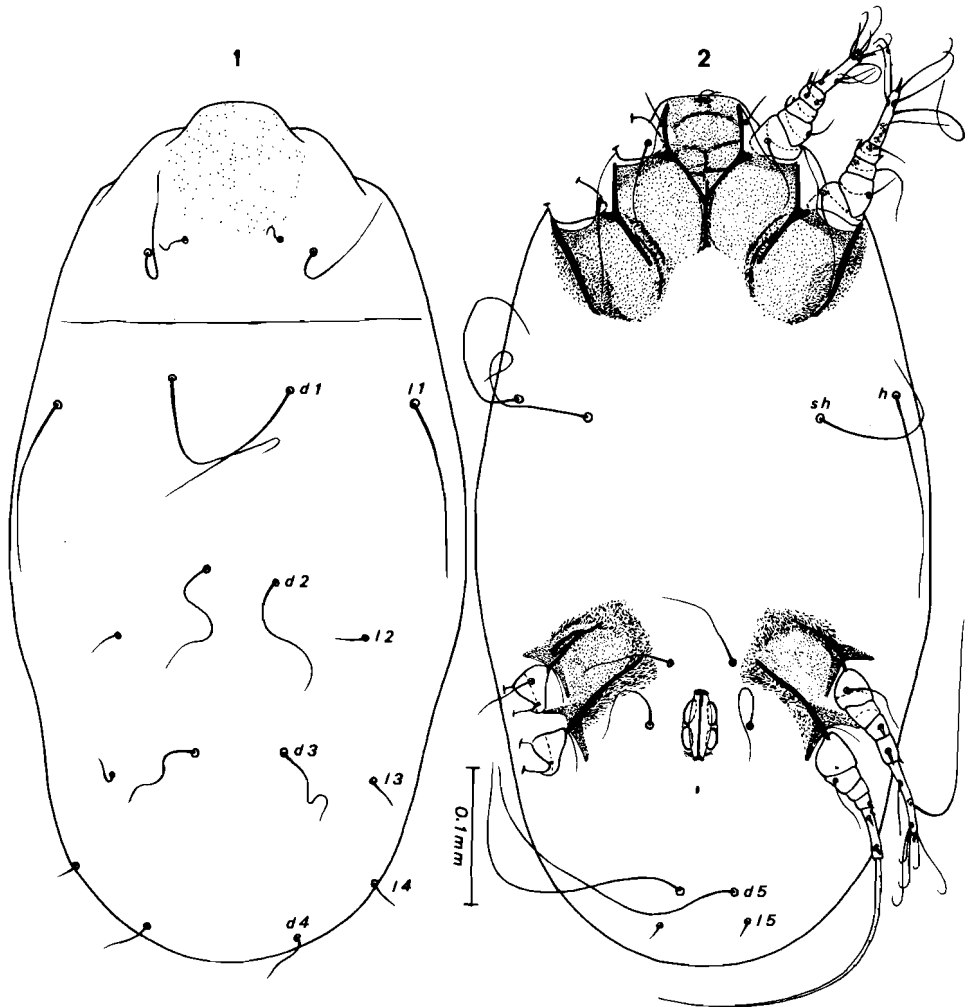
Subgenus **PELECANECTES** Fain, 1966

***Neottialges (Pelecanectes) platalea* sp. nov.**

Only the hypopial stage is known.

HYPOPUS (figs. 1-5): The holotype is 615 μ m long and 315 μ m wide. Cuticle slightly sclerotized.

DORSUM: a weak sejugal furrow is present. The setae *sc i* are very short and thin. Setae *d1*, *d2*, *d3*, *d4*, *l1* are 130, 90, 60, 35 and 120 μ m long, respectively. Setae *l2* to *l4* are very short (fig. 1).



FIGS. 1-2. *Neottialges (Pelecanectes) platalea* sp. nov. Holotype hypopus in dorsal (1) and ventral view (2).

VENTER: genital sclerite entire but slightly thinner in its middle. Genital discs narrow, subparallel. Epimera II to IV free. All the coxal fields are slightly sclerotized. Anterior region of body wide (fig. 2).

LEGS: Tarsi I to IV are 40, 42, 60 and 41 μm long, respectively. All setae of tarsus III are thin except the apical one which is short, thick and bifid (fig. 4). Tarsus IV with three small spines of which one is close to the base of the tarsus (fig. 5).

HOST AND LOCALITY: Under the skin of the abdomen of a spoonbill, *Platalea leucorodia* L. which died in the London Zoo after 5 years in captivity, 2.IX.1977.

Holotype (hypopus) and two paratypes in the British Museum (Natural History), 20 paratypes (hypopi) in the collection of the authors.

***Neottialges (Pelecanectes) ajajae* Fain, 1966**

This species has been described from the rosy spoonbill, *Ajaja ajaja* (L.), originating from North America but dying in the Antwerp Zoo. The same species has



FIGS. 3-5. *Neottialges (Pelecanectes) platalea* sp. nov. Distal part of legs I (3), III (4) and IV (5).

been found in two *Platalea leucorodia* dying in the London Zoo, one in 1973 and the other in 1977. In both birds, these hypopi were mixed with the hypopi of *N. (P.) plegadicola* Fain (see below). In the second bird, the new species described above, *N. (P.) platalea* sp. nov., was also present. All these hypopi were found together in the cellular tissues under the skin of the abdomen. *N. ajajae* in the hypopial stage is a larger species with an interrupted genital median sclerite, genital discs subparallel, setae *d4* long (Fain 1967).

***Neottialges (Pelecanectes) plegadicola* Fain, 1966**

The typical host of this species is the glossy ibis, *Plegadis falcinellus* (L.), in Belgium. This species has also been found in the two spoonbills dying in the London Zoo. The genital discs of this species are strongly divergent posteriorly (Fain 1967).

Summary

A new species of hypoderid mite, *Neottialges (Pelecanectes) platalea*, found beneath the skin of the spoonbill, *Platalea leucorodia* L., is described. A key is provided to the hypopi of *Neottialges* subgenus *Pelecanectes* with a complete genital median sclerite. The new species was found in the hypopial stage associated with hypopi of *N. (P.) ajajae* Fain and *N. (P.) plegadicola* Fain in the same host.

Acknowledgement

We should like to thank Mr. D. M. Jones, Zoological Society of London, for collecting the specimens described here.

References

- FAIN, A., 1966, Note sur les acariens nidicoles à deutonymphe parasite tissulaire des oiseaux (Hypodectidae: Sarcoptiformes) (Note préliminaire), *Revue zool. Bot. afr.*, **74**, 324-330.
- 1967, Les hypopes parasites des tissus cellulaires des oiseaux (Hypodectidae: Sarcoptiformes), *Bull. Inst. r. Sci. nat. Belg.*, **43**, 1-139.
- 1969, Nouveaux hypopes parasites des tissus cellulaires d'Oiseaux, *Bull. Annl. Soc. r. ent. Belg.*, **105**, 91-102.
- FAIN, A., and AMERSON, A. B., Jr., 1968, Two new heteromorphic deutonymphs (Hypopi) (Acarina: Hypoderidae) from the Great Frigatebird (*Fregata minor*), *J. med. Ent.*, **5**, 320-324.
- FAIN, A., and LAURENCE, B. R., 1974, A guide to the heteromorphic deutonymphs or hypopi (Acarina: Hypoderidae) living under the skin of birds, with the description of *Ibisidectes debilis* gen. and sp. nov. from the scarlet Ibis, *J. nat. Hist.*, **8**, 223-230.
- PENCE, D., 1973, The hypopi from the subcutaneous tissues of the brown Pelican, *Pelecanus occidentalis carolinensis* Gmelin, *J. Parasit.*, **59**, 711-718.