

Insects of Saudi Arabia

Anoplura

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Abstract: A list of Anoplura recorded from Saudi Arabia up to March 1980 is given, together with their host species and collection data. Eight species are listed, six of which have not previously been recorded from the Kingdom.

Anoplura مرتبة القمل الماص

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خلاصة: ذكرت قائمة لحشرات مرتبة القمل الماص وعوائلها وتواريخ جمعها لما تحصل عليه بالمملكة العربية السعودية حتى مارس ١٩٨٠ وقد ذكرت ثمانية أنواع منها ستة أنواع لم تعرف بالمملكة من قبل.

INTRODUCTION

Anoplura (sucking lice) are obligate ectoparasites of mammals; they are haematophagous, and cannot survive off the body of the host for more than a brief period. Louse species are generally restricted to a single host species or a group of closely-related host species. Because of this narrow host-specificity, it is theoretically possible to predict the distribution of a louse species merely by plotting that of its host. However, this inferred distribution is not always correct, and in practice actual collection records must be used in the compilation of louse distributions. Published records of lice from Saudi Arabia are very scanty and few specimens are present in collections, so no real idea of the richness of the sucking louse fauna can be gained from these sources. Inference from the presence of potential host species in the Country suggests a far greater diversity of sucking lice than is presented in this paper, but this remains to be confirmed by further collection.

The following is a list of the known records of Anoplura from Saudi Arabia up to March 1980. Only two species have previously been recorded: *Pediculus capitis* and *Pthirus pubis*, both from man. Six further species are here recorded for the first time. Most of the specimens listed below have been collected by Prof. Dr. W. Büttiker during the past two years, and are now deposited in the British Museum (Natural History).

Linognathidae

Linognathus africanus Kellogg and Paine, 1911.

Numerous ♂, ♀, nymphs from domestic sheep, Durma (Riyadh), 10. II. 1978, W. Büttiker. 2 ♂, 3 ♀, 3 nymphs from domestic sheep, 19 Km. East of Hafar el Atk, 25. X. 1978, S. E. Clarke. 2 ♂, 3 ♀, 2 nymphs from domestic sheep, sheep market, Riyadh, 18. II. 1979, (the animal was from Bureida, Quasim) W. Büttiker. Numerous ♂, ♀, nymphs from domestic goat, Sharoura, 29. III. 1979, W. Büttiker.

This species was described from 'sheep' in Nigeria, and has been recorded from domestic sheep and goats in Africa, India and North America.

Linognathus stenopsis (Burmeister, 1838).

1 ♂, 3 nymphs from domestic goat, Banban (Riyadh), 9.II.1979, W. Büttiker.

This species was described from the domestic goat and has been recorded from it in many parts of the World.

Linognathus sp.

2 ♂, 2 ♀ from *Gazella gazella arabica*, 'West Saudi Arabia'.

The four specimens in the British Museum collection are in very poor condition, but resemble both *L. africanus* (from goats and sheep) and *L. tibialis* (from *Antilope* spp.); further specimens may reveal the species on *G. g. arabica* to be one of these.

Pediculidae

Pediculus capitis DeGeer, 1778.

Several eggs from man, Qaah, near Zahran (Asir), 27.IX.1978, W. Büttiker. 1 ♂ from man, Sharoura, 29.III.1979, W. Büttiker. Beccari (1971) records the species as 'endemic'.

Pthiridae

Pthirus pubis (Linnaeus, 1758).

1 ♀ from man, Riyadh, 12.III.1978, W. Büttiker. 1 ♀ from man, Todiah (Riyadh), 10.IX.1979, W. Büttiker. Beccari (1971) records the species from Dahran.

Polyplacidae

Polyplax brachyrrhyncha Cummings, 1915.

1 ♂, 3 ♀ from *Acomys dimidiatus* (3 specimens examined), Wadi Rasid (Riyadh), 13/14.IV.1978, W. Büttiker. 2 ♂, 1 ♀ from *A. dimidiatus*, Kushm Buwaybiyat (Riyadh), 26.V.1978, W. Büttiker. 1 ♂, 3 ♀ from *A. dimidiatus* (specimen no.83), Adama (Baha), 23.IX.1978, W. Büttiker. 1 ♀ from *A. dimidiatus* (specimen no.127), Thamniyah (Asir), 8.III.1979, W. Büttiker. 3 ♀ from *A. dimidiatus* (specimen no.121A), Thamniyah (Asir), 8.III.1979, W. Büttiker. 3 ♂, 2 ♀ from *A. dimidiatus*, Thamniyah (Asir), 8.III.1979, W. Büttiker.

This species was described from *Acomys cabrinus* in Egypt, has been recorded from *A. hystrella* and *A. percivali* in East Africa and many times from *A. dimidiatus* in Egypt. (See also *P. oxyrrhyncha* below.)

Polyplax oxyrrhyncha Cummings, 1915.

2 ♂, 1 ♀ from *Acomys dimidiatus* (specimen no.83), Adama (Baha), 23.IX.1978, W. Büttiker. 1 ♂ from *A. dimidiatus* (specimen no.127), Thamniyah (Asir), 8.III.1979, W. Büttiker.

This species was described from *Acomys cabrinus* in Egypt, has been recorded from *A. hystrella* and *A. percivali* in East Africa and many times from *A. dimidiatus* in Egypt.

CUMMINGS (1915), FERRIS (1923) and JOHNSON (1960) have all pointed out that *P. brachyrrhyncha* and *P. oxyrrhyncha* frequently occur on the same host animal. This has been found in the present study also, as two host animals (numbers 83 and 127) had double infestations. Because of the difficulty in distinguishing between the nymphs of the two species, records of *Polyplax* nymphs from *Acomys dimidiatus* are given separately below.

***Polyplax* sp. (*brachyrrhyncha*/*oxyrrhyncha*)**

1 nymph, *Acomys dimidiatus*, Wadi Rasid (Riyadh), 13/14.IV.1978, W. Büttiker. Host otherwise infested with *P. brachyrrhyncha* only. 1 nymph, *A. dimidiatus*, Ash Sharayi (Asir), 25.IX.1978, W. Büttiker. Host not otherwise infested. 1 nymph, *A. dimidiatus* (specimen no.83), Thamniyah (Asir), 8.III.1978, W. Büttiker. Host otherwise infested with *P. brachyrrhyncha* and *P. oxyrrhyncha*, 3 nymphs, *A. dimidiatus* (specimen no.121A), Thamniyah (Asir), 8.III.1979, W. Büttiker. Host otherwise infested with *P. brachyrrhyncha* only.

***Polyplax jonesi* Kellogg and Ferris, 1915.**

1 ♂, 4 ♀, 1 nymph from *Gerbillus nanus arabium* (3 specimens examined), Wadi Khumra (Riyadh), 23/24.III.1978, W. Büttiker. 3 ♀ from *G. nanus arabium*, Dirab (Riyadh), 7.V.1978, W. Büttiker. Numerous ♂, ♀, nymphs from *G. nanus*, Wadi Khumra (Riyadh), 8.VIII.1978, W. Büttiker. 1 ♀ from *G. nanus*, Wadi Khumra (Riyadh), 24/25.VIII.1978, W. Büttiker. 3 ♂, 3 ♀, 4 nymphs from *G. nanus*, Wadi Khumra (Riyadh), 23.II.1979, W. Büttiker. 1 ♂, 1 ♀, 4 nymphs from *G. dasyurus*, Jebel Banban (Riyadh), 13.XI.1978, W. Büttiker.

This species was described from *Saccostomus campestris* in South Africa, and has hitherto been known only from this host species in South and South-West Africa. The Saudi Arabian specimens differ from the South African (as described) in having fewer abdominal tergal setae, but this difference does not justify separate specific recognition.

***Polyplax paradoxa* Johnson, 1960.**

Numerous ♂, ♀, nymphs from *Meriones libycus*, Wadi Khumra (Riyadh), 23.II.1979, W. Büttiker.

This species was described from *Meriones* sp., *M. crassus* and *M. libycus* in Egypt, and has since been recorded from *M. shawi* in Tunisia.

REFERENCES

- BECCARI, F., 1971. *Contributo alla conoscenza dell'entomofauna dell'Arabia Saudita*. Riv. Agric. subtrop. trop. 65: 178-211.
- CUMMINGS, B.F., 1915. *On two new species of Polyplax (Anoplura) from Egypt*. Proc. zool. Soc. Lond. 2: 245-272.
- FERRIS, G.F., 1923. *Contributions towards a Monograph of the Sucking Lice. Part IV*. Stanford Univ. Pubs, Univ. Ser., Biol. Sci. 2: 181-270.
- JOHNSON, P.T., 1960. *The Anoplura of African Rodents and Insectivores*. U.S.D.A. Technical Bulletin No. 1211.

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