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NOTEWORTHY AFRICAN TICK RECORDS IN THE BRITISH
MUSEUM (NATURAL HISTORY) COLLECTIONS

(IXODOIDEA¹)

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The following unpublished records of African ticks in collections of British Museum (Natural History) are noteworthy for providing new data on distribution and hosts of African species. The information has been obtained from studying collections in the Museum and from large numbers of unidentified specimens sent me for identification. Some additional information has been obtained from Nuttall's tick logbook, now in the Museum file.

I am indebted to the Director, to Mr. E. Browning, and to Dr. G. Owen Evans for the privilege of seeing this material and making this report as well as for many kindnesses during my visits there.

ARGASIDAE

Argas transgaripepinus White, 1846

Usually considered as an African tick, this species has been known only from three type specimens from Basutoland (White, 1846), one male (as *A. lochi*) from the same area (N.umann, 1901), numerous specimens from Egypt (Hoogstraal, 1952) and two from Italy (Berlese, 1913).

Additional data for the extra-African range of this tick were encountered while examining Nuttall's logbook. Entry for lot number 3135 indicates that a female was received on Feb. 15, 1915, from Valdealgorfa, Teruel, Spain, and mounted on a slide. Although the specimen cannot be located now, Nuttall had the types for comparison and there can be little doubt as to the accuracy of identification of this highly distinctive species.

In Egypt this tick is so secretive that I believe the rarity of records from elsewhere is due chiefly to the difficulty of finding it. Eventually it will probably be found in intervening localities.

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²The opinions and assertions contained herein are the private ones of the writer and are not to be construed as official or reflecting the views of the Navy Department or the Naval Service at large.

Ornithodoros moubata (Murray, 1877)

2 ♀♀, 1 nymph, Daru, Sierra Leone, June 1911, Dr. J. C. Murphy. 1 nymph, Ashanti, Obuasi (Gold Coast), May 21, 1906, W. M. Graham. These collecting localities are quite far west of the presently known range of *O. moubata* (Leeson, 1952) and lie within areas frequently reported as free of this species, the well-known vector of African relapsing fever. It is difficult to determine whether these specimens represent isolated populations introduced by human travelers from the east, whether they indicate that this tick is actually more widely spread in West Africa than previously suspected, or whether they are from relict populations from pre-human-habitation days when *O. moubata* was probably entirely an inhabitant of large animal burrows. A renewed search for this important vector of African tick-borne relapsing fever is indicated in these areas.

Specimens from Gros Namaland, South-west Africa, Trommsdorff (Nuttall lot 2831). Although *O. moubata* has been recorded from South-west Africa in early literature, confirmatory data for material examined by Nuttall from this remote area are of importance.

1 nymph from warthog, near Mwendwa, Northern Rhodesia, Aug. 9, 1913 (Nuttall lot 2389). 4 nymphs from a collection of 64 nymphs from a warthog burrow, Moukey Bay, Nyasaland, Aug. 27, 1915 (Nuttall lot 3216). These records add to the rapidly increasing body of knowledge that *O. moubata* frequently inhabits large burrows of wild animals, especially warthogs, and that such situations are probably this tick's original habitat.

Ornithodoros capensis Neumann, 1901

1 ♀, from leg of soldier, Benfi Island, Amara Bay, Lake Nyasa. This is the only record of this tick from inland Africa. It is a parasite of nesting sea birds and penguins on islands and seacoasts in the southern hemisphere, and is a notorious biter of man when he ventures into these places. The Lake Nyasa specimen may have dropped from a wandering bird. It would be of interest to know whether *O. capensis* has established itself in Nyasaland.

IXODIDAE

Amblyomma cohaerens Dönitz, 1909

4 ♂♂, 1 ♀ from black rhinoceros, *Diceros bicornis bicornis* (Linnaeus), Pateo, Victoria Nile, Uganda, C. R. S. Pitman. This is the only record of the buffalo tick attacking a rhinoceros.

10 ♂♂, 4 ♀♀ from buffalo, *Synceus caffer* subsp., Kibango, Northern Tanganyika, C. Christy. No other locality record in Tanganyika itself is available for this species, and this is the most southern record for this East and Central African buffalo parasite, except possibly for the type locality of *A. anceps* Dönitz, 1909, a synonym of *A. cohaerens*, from "Lake Tanganyika."

Amblyomma cuneatum Neumann, 1899

Records of this unusual tick are rare and usually with less detailed data than the following, all collected by I. T. Sanderson in Camerouns from 1932 to 1934:

6 ♂♂, 3 ♀♀ from long tailed pangolin, *Uromanis longicaudata* (Brisson), beneath scales of back and tail, one on skin below neck; secondary forest, 450 feet alt., Mamfe, Nov. 10. 11 ♂♂, same host species, under scales of back; farmed forest land, 550 feet alt., Bachor-N'Taylor, Dec. 2. 10 nymphs, 3 ♂♂, arboreal pangolin, *Phataginus* (= *Manis*) *tricuspis* (Rafinesque), under scales all over body; secondary forest, 450 feet alt., Mamfe, Nov. 7. 2 nymphs, 8 ♂♂, same host species as preceding, beneath scales; secondary forest, 700 feet alt., Bashaui, Mar. 23. 1 nymph, same host, locality, and date as preceding; under scale on back. 3 ♂♂, from same host species as preceding; from skin on underside; secondary jungle, 700 feet alt., Mokonyong, Mar. 23.

Amblyomma marmorcum group

1 ♀ from African puff adder in London Zoological Gardens, Sept. 13, 1904. An interesting record.

7 nymphs from a bird, the African hoopoe, *Upupa africana*, mouth of Lurio River, Mozambique, June 28, 1932, J. Vincent. This is the only record of nymphs from a wild bird, although domestic fowl have been reported as hosts of this stage.

1 ♀ from "tortoise from bush," Ninkintumania, Sierra Leone, June 28, 1913 (Nuttall lot 2326). There is no other indication of *A. marmorcum* from Sierra Leone except for an entomological note in the 1914 Medical Report of this territory, published in 1916.

Amblyomma pomposum Dönitz, 1909

4 nymphs, 3 ♂♂ from Ankole topi, *Damaliscus korrigum ugandae*, Lugaga, Ankole, Uganda, C. R. S. Pitman. This is the only record of this tick from Uganda and from this host.

Amblyomma rhinocerotis de Geer, 1778 (= *A. petersi* Karsch, 1878)

1 ♂, 1 ♀, from grass, Kajo Kaji, Equatoria Province, Anglo-Egyptian Sudan, Captain C. M. Stigand. Previously only known from Torit and Bor in the Anglo-Egyptian Sudan (King, 1926), this is the only record of the rhinoceros tick from west of the Nile in this territory. It is probably associated with the "white" or "square-lipped" rhinoceros.

Amblyomma tholloni Neumann, 1899

1 ♂ from buffalo, Kibango, Northern Tanganyika, C. Christy. This elephant parasite has not previously been reported from the buffalo, *Synceus caffer*.

Amblyomma variegatum Koch, 1844

1 nymph from a raven, Harar, Abyssinia, Feb. 27, 1912. 2 nymphs from a harnessed bushbuck, *Tragelaphus scriptus*, dry season, Bulukaton, West Nile, Uganda, Mar. 21, 1928, C. R. S. Pitman. 25 nymphs,

1 ♂, 2 ♀ ♀ from an oribi, *Ourebia montana*, Nadda, Djimma, Abyssinia, May 11, 1927, F. W. J. Cox. All nymphal *A. variegatum* were either identified by Dr. G. Theiler, or my determinations of these specimens were confirmed by her. The above records give valuable data for the little-known host preferences of the immature stage of this ubiquitous African tick.

1 ♂ from an Arabian wolf, *Canis lupus arabs*, Ain, Southern Arabia, B. S. Thomas. An unusual host and locality record. My own collecting records (unpublished) contain much data for *A. variegatum* in the mountains of Yemen. Carnivores are rarely attacked by adult ticks of this species; this exception possibly reflects the marginal conditions in which *A. variegatum* persists in certain poorly populated areas of Southern Arabia where its usual domestic animal hosts are scarce.

Aponomma exornatum (Koch, 1844)

3 ♂ ♂ from fruit bats, Il. Sao Thome, Angola. J. A. Barnes. This is an unusual host record for this parasite of *Varanus* lizards.

12 ♂ ♂ from a warrener lizard, *Varanus* sp., Yegü, Vatta, Gold Coast. There are no other records of the lizard tick from the Gold Coast.

Aponomma latum (Koch, 1844) (= *A. laeve capensis* Neumann, 1901, of authors)

1 ♀ from python's head, Ibadan, Nigeria, F. D. Golding. The first record of the snake tick from Nigeria, this represents a considerable extension of known range.

1 ♀ from coastal warrener lizard, *Varanus albigularis*, near Mida, Sokoke Forest, Malindi, Kenya (with four ♀ ♀ *A. exornatum*), E. A. Lewis. I know of no previous reliable records of this tick from hosts other than snakes.

1 ♀ from a porcupine, *Hystrix* sp., Mduna River, Acabisa, Zululand. Another unusual host record for the snake tick.

1 ♂ from a tree snake, *Chloropsis emini*, Lake Victoria, Uganda. The first record from this host.

Boophilus annulatus (? *congolensis* Minning, 1934)

8 ♀ ♀ from Hausa cattle, east of Obubra, Nigeria, Aug. 8, 1913, Dr. J. R. Allen. 1 ♂, 4 ♀ ♀ from cattle, Kamagota, Sierra Leone, Nov. 1, 1913, Dr. J. J. Wood (Nuttall lot 2670). These are the only records of this tick from Nigeria and Sierra Leone. The specimens cannot be differentiated from American specimens of *B. annulatus*. Note that the latter lot listed above also includes *B. decoloratus* (listed below). In the anglo-Egyptian Sudan we find these two species on the same host animals, and, as here, our Sudan collections usually contain many more specimens of *B. decoloratus* than they do of *B. annulatus*.

Boophilus decoloratus Koch, 1844

1 ♂, numerous ♀ ♀ from cattle, Kamagota, Sierra Leone, Nov. 1, 1913, Dr. J. J. Wood (Nuttall lot 2670). The blue tick has not previously been recorded from Sierra Leone.

Dermacentor rhinoceros Deun, 1813 (= *D. rhinocerotis* of authors)

1 ♂, from rhinoceros, *Diceros b. bicornis*, Northern Rhodesia (without further locality), July 6, 1932, H. S. Purchase (Nuttall lot 3856). This specimen, which had been determined as "variety *permaculatus* Nm.", appears to be the only record of this tick from Northern Rhodesia.

Haemaphysalis hoodi hoodi Warburton and Nuttall, 1909

4 ♂ ♂ from shrike, "*Telephonus*." Gazi, Kenya (= B.E.A.), Aug. (? Apr.) 23, 1910, Robin Kemp. 1 ♂, 1 ♀ from spurfowl (*Francolinus* sp. or *Pernistes* sp.), Isiolo, Kenya, E. A. Lewis. Kenya has not heretofore been reported as within the host range of this avian parasite although its presence there was to be expected.

4 ♂ ♂, 2 ♀ ♀ from tehagra shrike, *Tehagra* sp., mouth of River Lurio, Mozambique, J. Vincent. Few hosts of *H. hoodi hoodi* have been listed, and this is the first definite record for the tehagra shrike. The Mozambique data and other records in my collection from elsewhere in Africa indicate that this bird is probably a frequent host.

Haemaphysalis parvata Neumann, 1905

1 ♂, 1 ♀ from forest duiker, *Cephalophus* sp., and 2 nymphs from a genet, *Genetta* sp., all from Ngong, Kenya, L. J. Boreham. These specimens had been labelled and reported by E. A. Lewis (1934) as *H. bispinosa*. I have been unable to find any evidence that, possibly beyond arriving at the Mombasa port on Asiatic cattle, *H. bispinosa* is established in Africa. Adults and immature stages of *H. parvata* usually feed on hoofed animals, and rarely on domestic dogs, but this is the first record of nymphs from a wild carnivore. My collection, however, contains additional nymphs from mongoose in French Equatorial Africa.

1 ♀ from domestic goat, Fairfield, Nakuaso, Kenya, E. A. Lewis. This specimen had been identified as *H. calcarata* by the collector, and was evidently the basis of his published report of *H. calcarata* from sheep (Lewis, 1931). *H. calcarata* actually is one of the most host-specific of African haemaphysalid ticks and its occurrence on any animal other than ground squirrels would have to be considered as most exceptional.

2 ♀ ♀ from bushbuck, *Tragelaphus scriptus* subsp., Afran Plains, Ashanti, Gold Coast, Nov. 4, 1937, G. S. Cansdale. 6 ♀ ♀ from bushbuck, Kakatia Forest, Kenya, E. A. Lewis. 2 ♀ ♀ from impalla, *Aepyceros melampus* subsp., Naivasha, Kenya. 1 ♀, 2 nymphs from Harvey's duiker, *Cephalophus natalensis harceyi*, Taveta, Kenya, E. A. Lewis. 1 ♀ from bay duiker, *Cephalophus dorsalis* subsp., old secondary forest, Mamfe, Eschobi, Cameroons, Oct. 25, 1932, I. T. Sanderson. 2 ♀ ♀ from cattle, Loitokitok, Kenya, E. A. Lewis. Published host data for this tick are so scarce that the above records are noteworthy.

Hyalomma truncatum Koch, 1844 (= *H. transiens*, variously attributed to Schulze, 1919 and to Delpy, 1949; See Feldman-Muhsam, 1954)

Some of the most important papers on this genus in tropical Africa have been the biological and disease relation studies of E. A. Lewis. The species were identified at a time when the taxonomic status of these ticks was chaotic, and Lewis used a variety of species and subspecies names to refer to his materials. These names have subsequently been differently interpreted by various authors without reference to Lewis' specimens. British Museum (Natural History) collections contain a number of *H. truncatum* specimens collected by Lewis in Kenya which are listed below with his determinations in parenthesis. The records in themselves are of considerable interest and the discrepancies in determinations will indicate the errors in previously published assumptions of what species Lewis was using for his experiments.

12 ♂♂, 6 ♀♀, cattle, Soysambu, Mar. 3, 1931 (*H. impressum*). 3 ♂♂, 3 ♀♀, sick calf, Malewa, Naivasha, Feb. 18, 1931 (*H. impressum*). 1 ♂, Masai calf, Ngong-Kajiado, July 13 (*H. dromedarii*). 2 ♂♂, cattle, Ngoliba, Thika, July 20, 1932 (*H. dromedarii*). 3 ♂♂, 1 ♀, native sheep, Harries farm, Njoro, June 17 (*H. dromedarii*). 2 ♂♂, cattle, Tanneata, Naivasha, Feb. 8, 1931 (*H. impressum*). 6 ♂♂, Masai cattle, Kedong dam, July 5, 1932 (*H. dromedarii*). 1 ♂, man, Kajaido, May 25, 1931 (*H. dromedarii*). 10 ♂♂, Masai cattle, Kajaido, July 19, 1932 (*H. dromedarii*). 7 ♂♂, sheep, Essnigeri, July 7, 1932 (*H. dromedarii*).

***Rhipicephalus compositus* Neumann, 1897 (= *R. ayeri* Lewis, 1933)**

1 ♂ from leg of man, Elizabethville, Belgian Congo, Dec. 20, 1927, M. Burr. *R. compositus* has not been recorded from man and not from the Belgian Congo except for remarks (as *R. ayeri*) by Theiler presented by Santos Dias (1949).

***Rhipicephalus complanatus* Neumann, 1911**

1 ♀ from short-haired rat, *Praemomys tullbergi* subsp., Mamfe, Eschobi Mamfe, Cameroons, May 12, 1933, I. T. Sanderson. Man and wild pigs only have previously been recorded as hosts of this tick.

***Rhipicephalus muhlensii* Zumpt, 1943**

2 ♂♂ from roan antelope, *Hippotragus equinus* subsp., Tanganyika, 1912, Dr. Schellhase (Nuttall lot 3006). Little data on this tick has been published and this lot is of particular interest in that Nuttall had considered (and labelled) it as the apparently excessively rare *R. longicovatus* Neumann, 1905.

***Rhipicephalus pravus* Dönitz, 1910**

Numerous nymphs from "elephant shrew" (Insectivora: Macroscelididae), Morogora, Tanganyika, November, Mr. Dodd. 1 ♀ from a shrike, "Telephonus" Gazi, Kenya, Aug. 23, 1910, and numerous nymphs from a rodent, Voi, Kenya, both by Robin Kemp. These records indicate the predilection of nymphal stages for small insectivores and rodents and the occasional feeding of adults on birds.

***Rhipicephalus simus senegalensis* Koch, 1844**

Numerous ♂♂ and ♀♀ from cattle, Mgunda, Kilosa, Tanganyika, Jan. 11, 1927, N. C. E. Miller. *R. simus senegalensis* is a West and Central African tick. This is the first record from Tanganyika. Additional specimens in my collection comprising new distribution records come from Equatoria Province, Anglo-Egyptian Sudan, and Uganda, between Lake Victoria and the Sudan.

***Rhipicephalus supertritus* Neumann, 1907**

Several adults of both sexes from warthog, *Phacochoerus aethiopicus* subsp., Marimba, Nyasaland, July 1913 (Nuttall lot 2394). Although not unexpected, this is the only record of this seldom collected tick from a warthog. Larger animals, especially antelopes, are the usual host.

***Rhipicephalus zlemanni* Zumpt, 1943**

1 ♀ from leopard, *Felis pardus* subsp., primary forest, 500 feet elevation, Maimya bridge, Mamfe, Cameroons, May 12, 1933, I. T. Sanderson. 1 ♂, 1 ♀ from behind ears of hyrax, Tinta-Atolo, Mamfe, Cameroons, Apr. 12, 1933, I. T. Sanderson. Domestic cattle and a few large wild animals have been listed as hosts for this rare tick. These are the first records from a carnivore or a hyrax.

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