

NOTE

Ticks of the Subgenus *Ixodiopsis*: First Report of
Ixodes woodi from Man and Remarks on
Ixodes holdenriedi, a New Junior Synonym of
Ixodes ochotonae (Acari: Ixodidae)

Recently, this laboratory received a partially engorged nymphal *Ixodes* tick that had been removed from the neck of a child (age and sex not stated) on 5 June 1967 at Francis E. Warren Air Force Base, Laramie Co., Wyoming. No previous effort had been made to determine the specific identity of this specimen, probably because the only available key to the *Ixodes* nymphs of North America, that of Cooley and Kohls (1945, Natl. Inst. Health Bull. 184: 1-246), is out of date (nymphs were known for only 26 of the 41 species treated by Cooley and Kohls; since then, several taxa have been synonymized and 6 new species have been described). Careful comparison with material in the U.S. National (formerly Rocky Mountain Laboratories) Tick Collection has shown that the Wyoming specimen is *Ixodes woodi* Bishopp, a member of the morphologically close-knit subgenus *Ixodiopsis* Filippova, which comprises 7 species, all chiefly parasites of small rodents and insectivores (Robbins and Keirans 1987, J. Med. Entomol. 24: 310-314). This is the first known instance of human parasitization by *I. woodi*.

In North America, the subgenus *Ixodiopsis* is often referred to as the "*Ixodes angustus* group," after *Ixodes angustus* Neumann, a widespread parasite of cricetid rodents. Other Nearctic members of the *I. angustus* group include (besides *I. woodi*) *Ixodes eastoni* Keirans and Clifford, to date known only from southwestern South Dakota and the border area of northeastern Wyoming, where it parasitizes cricetine and microtine rodents; *Ixodes ochotonae* Gregson, a parasite of ochotonid lagomorphs and, to a lesser extent, cricetines in the montane West; and *Ixodes soricis* Gregson, a char-

acteristic tick of western soricid insectivores. Another taxon that would appear to fit the definition of subgenus *Ixodiopsis* is *Ixodes holdenriedi* Cooley, which is known only from the holotype and paratype, both females taken on the pocket gopher *Thomomys bottae* (Eydoux and Gervais), Sonoma Co., California, 25 March 1945. It seems remarkable that during more than 40 years no further specimens have come to hand in an area that has been particularly well worked by acarologists and public health personnel. Examination of the original description and of the type material (now in poor condition) indicates that *I. holdenriedi* is conspecific with, and therefore a junior synonym of, *I. ochotonae*.

Though Spencer (1963, Proc. Entomol. Soc. Brit. Columbia 60: 40) published a record of *I. soricis* from a girl, all other reports of *Ixodiopsis* ticks from man pertain to *Ixodes angustus*. As early as 1937, Chamberlin (Stn. Bull. Oregon Agric. Exp. Stn. 349: 1-34) noted that *I. angustus* will definitely feed on man, but he did not cite specific examples. Later, Cooley (1946, J. Parasitol. 32: 210) described 3 cases of human parasitization by *I. angustus* in the Pacific Northwest, Gregson (1956, Publ. Dep. Agric. Canada 930: 1-92) noted 2 cases from southwestern British Columbia, and Spencer (op. cit.) added 3 more records from that Province. In addition to these published records, there are 4 specimens in the Fred C. Bishopp Collection (now merged with the National Tick Collection) that were removed from humans: 1 partially engorged ♀ from the scalp of a boy, Sandy River, Multnomah Co., Oregon, 7 August 1934 (RML 118942); 2 partially engorged ♀♀ from

the arm of a 14-year-old girl, Forest Grove, Washington Co., Oregon, 8 August 1932 (RML 118959); and 1 partially engorged ♀ "taken from the shoulder of a man who complained of rheumatic pains Tick was firmly attached. Rheumatic symptoms soon subsided after removal of tick," Vancouver, Clark Co., Washington, 11 July 1938 (RML 118964). There are also 4 unpublished records in the National Tick Collection itself: 1 engorged ♀ from a child, Kirkland, King Co., Washington, August 1947 (RML 24023); 1 engorged ♀ from a young boy, Washington [State], 20 July 1956 (RML 33925); 1 partially engorged ♀ from the head of a young girl, Seattle, King Co., Washington, ca. 2 August 1977 (attachment site became inflamed on 12 August) (RML 105346); and 1 engorged ♀ from an otherwise undefined human host, Juneau, Greater Juneau Borough, Alaska, 1 August 1953 (RML 118623).

The nymph of *I. woodi* reported herein (RML 118594) may be described as follows

(measurements in millimeters): Length of body from scapular apices to posterior margin 2.157, greatest width 1.395; length of capitulum from palpal apices to cornua apices 0.297, width at level of cornua 0.261; palpi 0.245 long, 0.091 wide, segment I ventrally without an anterior spur but with a prominent posterior spur that projects laterally; hypostome broken; scutum 0.598 long, 0.581 wide; left tarsus I missing, right 0.287 long, 0.121 wide.

Thanks to Jerome Goddard, U.S. Air Force School of Aerospace Medicine, Brooks Air Force Base, San Antonio, Texas, for sending this most significant specimen.

Richard G. Robbins, *Department of Health and Human Services, Public Health Service, National Institutes of Health, National Institute of Allergy and Infectious Diseases, % Department of Entomology, Museum Support Center, Smithsonian Institution, Washington, D.C. 20560.*



Robbins, R G. 1989. "Ticks Of The Subgenus Ixodiopsis, 1St Report Of Ixodes woodi From Man And Remarks On Ixodes holdenriedi, A New Junior Synonym Of Ixodes ochotonae (Acari, Ixodidae)." *Proceedings of the Entomological Society of Washington* 91, 291–292.

View This Item Online: <https://www.biodiversitylibrary.org/item/54663>

Permalink: <https://www.biodiversitylibrary.org/partpdf/54147>

Holding Institution

Smithsonian Libraries and Archives

Sponsored by

Smithsonian

Copyright & Reuse

Copyright Status: In copyright. Digitized with the permission of the rights holder.

Rights Holder: Entomological Society of Washington

License: <http://creativecommons.org/licenses/by-nc-sa/3.0/>

Rights: <https://biodiversitylibrary.org/permissions>

This document was created from content at the **Biodiversity Heritage Library**, the world's largest open access digital library for biodiversity literature and archives. Visit BHL at <https://www.biodiversitylibrary.org>.