

SHORT COMMUNICATION

***Ixodes (Haemixodes) longiscutatum* Boero (New Status)
and *I. (H.) uruguayensis* Kohls & Clifford, a New Synonym
of *I. (H.) longiscutatum* (Acari: Ixodidae)**

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Females of Ixodes (Haemixodes) uruguayensis Kohls & Clifford, 1967, a species whose adults were unknown until the present, were obtained in the laboratory from engorged nymphs collected on rodents (Scapteromys tumidus and Oxymycterus nasutus) in the counties of Maldonado and San José, Uruguay. Morphological characters of these females were identical to those given in the description of the female of Ixodes longiscutatum Boero, 1944. I. uruguayensis is, thus, relegated to a junior subjective synonym of I. longiscutatum. However, because of the unique morphological characters of the immature stages, the validity of the subgenus Haemixodes Kohls & Clifford, 1967 is not questioned. Therefore, the new status of Ixodes (Haemixodes) uruguayensis Kohls & Clifford, 1967 is Ixodes (Haemixodes) longiscutatum Boero, 1944.

Key words: *Ixodes longiscutatum* - *Ixodes uruguayensis* - subgenus *Haemixodes* - Uruguay

Ixodes uruguayensis Kohls & Clifford, 1967 was described from larvae and nymphs collected from the rodents *Scapteromys tumidus* Waterhouse, 1837, *Necromys obscurus* (Waterhouse, 1837) and *Oligoryzomys flavescens* (Waterhouse, 1837) from the counties of Soriano, Maldonado and Cerro Largo, Uruguay (Kohls & Clifford 1967). Because of the new species exhibited striking morphological differences from all other species of *Ixodes*, the authors erected a new subgenus, *Haemixodes*, for the taxon. They pointed out that adults of this species were not found, although numerous ro-

dents and other mammals found in the area were examined. They also stressed that discovery of the adult stages should prove to be of exceptional interest. Three decades later, Venzal and Fregueiro (1999) again found larvae and nymphs of this species on *S. tumidus* and also on *Oxymycterus nasutus* Waterhouse, 1837 collected in the county of Maldonado in January 1999, and they tried unsuccessfully to obtain laboratory reared adults of this species from engorged nymphs.

In February 2000, we collected nine nymphs and one larva of *I. uruguayensis* together with two nymphs of *Amblyomma* sp. and ten beetles of the family Staphylinidae (probably *Amblyopinodes munoai* Mañe-Garzón & San Martín, 1959) from a specimen of *S. tumidus* from Kiyú (34°39'S, 56°55'W), county of San José, Uruguay. One engorged *I. uruguayensis* nymph was incubated at 27°C with a humidity higher than 75%. After 12 days, the nymph became quiescent and 20 days later molted to a female; the first known adult from the species we believed to be *I. uruguayensis*. Subsequently, in May 2000, two additional engorged nymphs were collected on *S. tumidus* and *O. nasutus* from Maldonado. Both specimens died during pre-ecdysis. Nevertheless, after we removed the shed

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nymphal cuticles, we obtained two females. The morphology of these adults was compared with that of various *Ixodes* species known for the region comprising Uruguay, Argentina and Brazil (Boero 1957, Aragão & Fonseca 1961), and their identity as *Ixodes longiscutatum* Boero, 1944 was confirmed.

I. longiscutatum is known from two females collected from a bovine and an equine in Entre Ríos Province, Argentina (Boero 1944, 1957), one female collected from a bovine in the same Province (Teper 1983), and one female found on a *Cavia* sp. in Uruguay (Keirans et al. 1976). Ivancovich (1973) also recorded this species from a rodent (*Akodon azarae bibiane*) in Formosa's Province, Argentina, but did not mention the sex or stages of his specimens. Males of *I. longiscutatum* are unknown.

Although the holotype of *I. longiscutatum* is lost, our specimens were compared with the description and figures of Boero (1944, 1957), and compared with females deposited in the United States National Tick Collection (USNTC), and identical characters were evident. The most significant were: scutum twice as long as wide; capitulum triangular and long; thin and whitish setae on cervical grooves and lateral margins of the scutum; and palpi thin and long. The only morphological character at variance with Boero's description is the hypostomal dentition. According to Boero, the dental formula is 2/2, but, as can be seen from his figures, the hypostome of the specimen is, to a large extent, broken apically. Hypostomes of our specimens are intact and show a dentition 3/3 apically and 2/2 at the base. Our specimens demonstrate that the larvae and nymphs that Kohls and Clifford (1967) used to erect a new subgenus and new species are actually the immature stages of *I. longiscutatum*. Therefore, *I. uruguayensis* becomes a junior subjective synonym of *I. longiscutatum*.

The life cycle of this species seems to involve rodents of the family Muridae as hosts of the immature forms. Adults have been found on a rodent of the family Caviidae from Uruguay, and two bovines and an equine from Argentina. It appears that bovines and equines are used as hosts only occasionally.

Because of the unique morphological characters found in the immature stages, the validity of the subgenus *Haemixodes* Kohls & Clifford, 1967 for *I. longiscutatum* is confirmed. This subgenus was proposed for larvae and nymphs of *I. uruguayensis*, whose adults have been shown to be identical to the adults of *I. longiscutatum*, a spe-

cies not assigned to any subgenus by Clifford et al. (1973). It was, however, included in *Amerixodes* nov. subgen. by Camicas et al. (1998) as *I. longiscutatus* "nov. emend". This was, however, based on the characters of adult specimens. Therefore, the subgenus *Amerixodes* Camicas et al. (1998) as it applies to *I. longiscutatum* is preoccupied and falls into synonymy with *Haemixodes* Kohls and Clifford (1967).

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