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Parasites from the Asiatic Black Bear (*Ursus thibetanus*) on Kyushu Island, Japan

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ABSTRACT: Two *Dirofilaria ursi*, six *Trichodectes pinguis* and numerous *Haemaphysalis megaspinosa* were obtained from an Asiatic black bear (*Ursus thibetanus*) shot in Kyushu, Japan. The presence of two parasites specific to black bears may indicate the existence of a wild population, although the bears are regarded to be extinct on Kyushu Island.

Key words: *Dirofilaria ursi*, *Trichodectes pinguis*, *Haemaphysalis megaspinosa*, Asiatic black bear, *Ursus thibetanus*, survey.

A male Asiatic black bear (*Ursus* (= *Selenarctos*) *thibetanus*) was shot in Ogata, Oita Prefecture, Kyushu, Japan (32°50'N, 131°50'E) on 24 September 1987, although this species is considered to be present only on Honshu and Shikoku Islands and to be extinct on Kyushu Island since 1941. The animal was necropsied in Oita Livestock Hygiene Center (Oita 870-11, Japan). The bear was estimated to be 4-yr-old by counting cementum annuli in its canine teeth. Two specimens of a filarial nematode, six specimens of a biting louse and numerous specimens of a hard tick were obtained from the bear. These were identified as *Dirofilaria ursi*, *Trichodectes pinguis* and *Haemaphysalis megaspinosa*, respectively. No parasites were recovered from the viscera of this bear.

Dirofilaria ursi was found in the esophageal and tracheal connective tissue. They were identified as *D. ursi* by the many longitudinal ridges on the cuticle. This species has been reported from *U. thibetanus* in some places in Honshu Island, Japan (Yamaguti, 1941; Uni, 1978, 1983), from brown bears (*Ursus arctos*) in Russia and Canada and from American black bears (*Ursus americanus*) in Canada and the United States (Anderson, 1952; Rogers and Rogers, 1976; Rogers, 1975; Manville, 1978; Pence et al., 1983). *Dirofilaria ursi*

is specific to these two species of bears, although *D. ursi*-like specimens have been reported from humans in Canada and the United States (Beaver et al., 1987).

Trichodectes pinguis and *H. megaspinosa* were found in ventral body hairs of this bear. The former, which has been reported from *U. thibetanus* in Japan and in a zoo in Paris (Nakagawa, 1960; Rogers and Rogers, 1976), from *U. arctos* in Europe (Rogers and Rogers, 1976) and from *U. americanus* in North America (Rogers and Rogers, 1976; Rogers, 1975; Manville, 1978), is also specific to these species of bears. *Haemaphysalis megaspinosa* is a common species of tick on various mammalian hosts in Japan (Yamaguchi and Kitaoka, 1980).

There have been bears reared or held in captivity at Ogata that could have been a source of infection of any parasites in the bear we examined. The finding of the two species specific to bears suggests that the bear examined may have originated from a wild population, although we are not sure whether or not the bear is a wild free-ranging or an escaped captive specimen.

The parasite specimens were deposited in the Department of Parasitology, Faculty of Veterinary Medicine, Hokkaido University, Japan (Accession number 1345).

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