

Evidence of the Brown Bear (*Ursus arctos*) tracking the Eurasian Lynx (*Lynx lynx*) on the Snežnik plateau, Slovenia

OPAŽANJE SLEDENJA RJAVEGA MEDVEDA (*URSUS ARCTOS*) EVRAZIJSKEMU RISU (*LYNX LYNX*) NA SNEŽNIŠKI PLANOTI

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Between 27th and 30th January 2007, one of the authors (M.K.) was snow tracking a Eurasian Lynx (*Lynx lynx*), probably a male, over the Snežnik plateau of the northern Dinaric Mountains in Slovenia. Tracking data were obtained with the aid of a handheld GPS and all comments by the observer were recorded on a dictaphone. On the last day of tracking – it was near Ždrocle (1478 m a. s. l.) in the south-eastern part of the plateau – it was noticed that an adult Brown Bear (*Ursus arctos*) came upon a lynx track and started to follow it (Fig. 1). The bear clearly followed the lynx for 692 meters (Fig. 2). It kept close to its track all the way, except at two points, where a track of a Chamois (*Rupicapra rupicapra*) and a Wild Boar (*Sus scrofa*) crossed the lynx's track (points A and C in Fig. 2, respectively). The bear followed both tracks for a few meters, perhaps temporarily mistaking it for a lynx, but then returned and started to follow the lynx track again. Several more tracks of wild boars, chamois, and Red Fox (*Vulpes vulpes*) crossed the lynx path, but except for those two instances, the bear did not pay attention to them. At one point (B), the lynx turned around and back-tracked its own trail for 15 m, and the bear did the same. After tracking the lynx for almost 700 meters, the bear lay down, as was evident from the prints in the snow (D). Afterwards it headed due S-SW, leaving the lynx track, which continued due SE towards the Croatian border. Both tracks were fresh, less than 24 hrs old. From the overlapped footprints it could be ascertained that the bear had walked after the lynx. The width of the central (interdigital) pad on the fore foot of the bear was 14.5 cm. According to the correlation calculated

from the data of culled bears in Slovenia (Slovenian Forest Service & Dept. of Biology, Biotechnical Faculty, unpublished data), this would correspond to a male bear, weighing approximately 170 kg (min-max: 110-260 kg).

Although it had been observed before that a brown bear followed a Eurasian Lynx track in Slovenia (F. Kljun, I. Kos, M. Krofel, T. Marinčič, unpublished data), to our knowledge this has never been suitably documented in the literature. Blažič (1997) reported on two instances of a bear walking along a lynx track at Velika gora near Ribnica, however, in these cases the bear walked in the opposite direction than the lynx.

Snow tracking in Sweden revealed that Wolverines (*Gulo gulo*) and red fox follow lynx track in order to locate and scavenge on its kill (Haglund 1996). It was also reported that Coyotes (*Canis latrans*) and red foxes often track Grey Wolves (*Canis lupus*) to their prey (Paquet 1991, Selva 2004). Searching for prey remains may also be the reason why bear followed lynx in our case. It is possible that the bear smelled a scent of carrion in the lynx footprints, as the lynx had earlier fed on a juvenile chamois, which it killed on a previous night. It is known that in Slovenia brown bears relatively often feed on carcasses of ungulates killed by Eurasian lynx (Krofel 2006). Preliminary results show that kleptoparasitism by brown bears may have an important effect on a predation rate of the Eurasian lynx in the northern Dinaric Mountains (Krofel *et al.*, in prep.). Further studies would be needed to determine how often bears find lynx prey by means of following their tracks.

Literature

- Blažič M. (1997): [Winter activity and interactions among large carnivores in the area of Ribniška Velika gora (Slovenia)], graduation thesis. Oddelek za biologijo, Univerza v Ljubljani, Ljubljana, 125 pp. [in Slovenian with English abstract]
- Haglund B. 1966: [Winter habits of the Lynx (*Lynx lynx* L.) and Wolverine (*Gulo gulo* L.) as revealed by tracking in the snow]. Viltrevy 4/3: 81-229. [in Swedish with English summary]
- Krofel M. (2006): [Predation and feeding habits of Eurasian lynx (*Lynx lynx*) in Slovenian Dinaric Mountains], graduation thesis. Oddelek za

biologijo, Univerza v Ljubljani, Ljubljana, 100 pp. [in Slovenian with English abstract]

Paquet P.C. (1991): Winter Spatial Relationships of Wolves and Coyotes in Riding Mountain National Park, Manitoba. J. Mammal. 72/2: 397-401.

Selva N. (2004): The role of scavenging in the predator community of Białowieża Primeval Forest (Poland), Ph.D. thesis. Polish Academy of Sciences, Poland and University of Sevilla, Sevilla, Spain, 202 pp.



Figure 1. Footprints of the Eurasian Lynx (*Lynx lynx*) (left) and the Brown Bear (*Ursus arctos*) (right) on the Snežnik plateau, southern Slovenia, 30 Jan 2007 (photo: Miha Krofel).

Slika 1. Stopinji evrazijskega risa (*Lynx lynx*) (levo) in rjavega medveda (*Ursus arctos*) (desno) na Snežniški planoti, južna Slovenija, 30.1.2007 (foto: Miha Krofel).

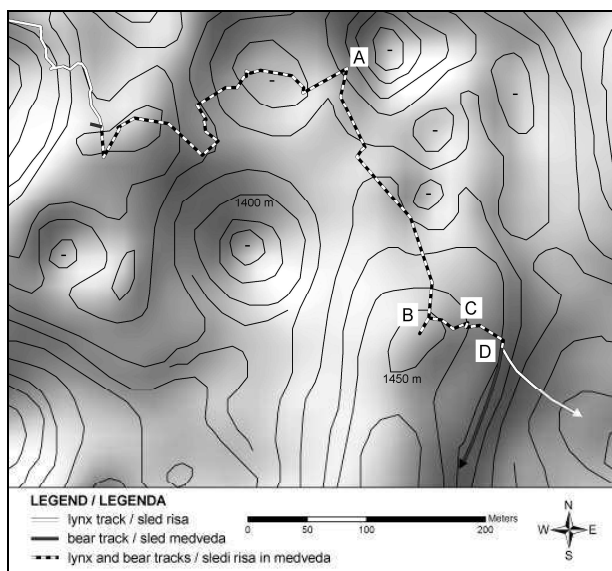


Figure 2. Mapped tracks of the Eurasian Lynx (*Lynx lynx*) and Brown Bear (*Ursus arctos*) on the Snežnik plateau in southern Slovenia. Contour line interval is 10 meters. See text for details of observations at points A, B, C, and D.

Slika 2. Vrisani poti evrazijskega risa (*Lynx lynx*) in rjavega medveda (*Ursus arctos*) na Snežniški planoti, južna Slovenija. Ekvidistanca med plastnicami znaša 10 m. Opažanja na točkah A, B, C in D so opisana v besedilu.