

Ferroglio E., Gennero M.S., Pasino M., Bergagna S., Dondo A., Grattarola C., Rondoletti M. & Bassano B. (2007). Cohabitation of a Brucella melitensis infected Alpine ibex (Capra ibex) with domestic small ruminants in an enclosure in Gran Paradiso National Park, in Western Italian Alps. European Journal of Wildlife Research, 53, 158-160.

After the first report of Brucella melitensis infection from a 7-year-old alpine ibex (Capra ibex) buck living in Gran Paradiso National Park (GPNP), further studies demonstrated the presence of the infection in ibex and chamois. Considering that livestock herds keep on sharing pastures with more than 3,500 ibex and 9,000 chamois in the park, our aim was to demonstrate under controlled conditions the possibility of Brucella infection passing from wild ruminants to livestock. A 7-yearold male alpine ibex with clinical signs of brucellosis and serologically positive was released in a 5,000 m2 enclosure together with five goats and two sheep rams. Due to poor condition, ibex was suppressed at day 40, domestic ruminants stayed into the enclosure potentially contaminated by ibex for further 38 days. During this period, we had monitored our animals taking blood from domestic ruminants every 15 days and tested the serum to Rose Bengal agglutination test and Complement Fixation test. Domestic animals tested negative at serology at all sampling time and at isolation, while B. melitensis biovar 3 was isolated from ibex tissues. Our data show that transmission of infection from ibex to livestock is not easy. After 40 days of strict cohabitation and 38 days of permanence in an area where an infected ibex lives, no one of the domestic animals contracted infection. In spite of the limitation of our field trial, we have demonstrated that long direct and indirect contact between alpine ibex and domestic animals will not easily lead to an infection of the latter. Further investigations are needed to confirm our results and evaluate the effective risk of B. melitensis transmission from alpine ibex to livestock.

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