BEHAVIOUR

ESTORIL | PORTUGAL

2017

35TH INTERNATIONAL ETHOLOGICAL CONFERENCE

ASAB SUMMER MEETING 2017

ABSTRACT BOOK

30TH JULY - 4TH AUGUST
ESTORIL CONGRESS CENTER | PORTUGAL

Session II - P241

Does ruminant neonate anti-predator strategy influence mother and offspring vocal identity?

Olga Sibiryakova (1), Ilya A. Volodin (1), Roland Frey (2) & Elena V. Volodina (3)

1) Department of Vertebrate Zoology, Faculty of Biology, Lomonosov Moscow State University, Moscow, Russia
2) Leibniz Institute for Zoo and Wildlife Research (IZW), Berlin, Germany
3) Scientific Research Department, Moscow Zoo, Moscow, Russia

E-mail: osibiryakova@bk.ru

Neonate ungulates have two main strategies for avoiding predators: hiding in grass and reunion with a mother only for nursing or following the mother in a herd soon after birth. These differences in the anti-predator strategies may affect individualization and acoustic structure of contact calls used for recognition between mother and offspring. We studied three species with different neonate anti-predator strategies: the "follower" saiga antelope Saiga tatarica, the "hider" goitred gazelle Gazella subguttorosa and two "hider" subspecies of red deer: the Iberian red deer *Cervus elaphus hispanicus* and the Siberian wapiti *C. e. sibiricus*. Saiga calls were collected on their natural breeding grounds in North Kazakhstan (call sequences of distinctive animals were selected from 235 hours of automated recordings), whereas calls of goitred gazelles, Iberian red deer and Siberian wapiti were collected with hand-held microphones in captivity (samples of 453, 1094 and 263 individually identified contact calls respectively). In saiga, discriminant analysis based on 10 acoustic variables, accurately classified individual identity in 97.9 nasal calls of 18 mothers and 94.4 oral and 61.8 oral and 64.2 oral calls of 9 mothers and in 96.9 nasal calls of 7 mothers and in 83.6 nasal calls of 12 neonates. The role of anti-predatory strategy in the classifying accuracy between species is discussed. Supported by the RFBR, grant 16-34-01230 (to OVS).