## Accepted Manuscript

Title: One plus one: binary alarm calls retain individual signature for longer periods than single-note alarms in the European ground squirrel (*Spermophilus citellus*)

Authors: Irena Schneiderová, Elena V. Volodina, Vera A.

Matrosova, Ilya A. Volodin

PII: S0376-6357(17)30073-6

DOI: http://dx.doi.org/doi:10.1016/j.beproc.2017.02.014

Reference: BEPROC 3392

To appear in: Behavioural Processes

Received date: 12-5-2016 Revised date: 16-1-2017 Accepted date: 16-2-2017

Please cite this article as: Schneiderová, Irena, Volodina, Elena V., Matrosova, Vera A., Volodin, Ilya A., One plus one: binary alarm calls retain individual signature for longer periods than single-note alarms in the European ground squirrel (Spermophilus citellus). Behavioural Processes http://dx.doi.org/10.1016/j.beproc.2017.02.014

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.



One plus one: binary alarm calls retain individual signature for longer periods than single-

note alarms in the European ground squirrel (Spermophilus citellus)

Irena Schneiderová<sup>a,\*</sup>, Elena V. Volodina<sup>b</sup>, Vera A. Matrosova<sup>c</sup>, Ilya A. Volodin<sup>b,d</sup>

<sup>a</sup> Department of Animal Science and Food Processing, Faculty of Tropical Agrisciences, Czech

University of Life Sciences, Kamýcká 129, Prague 6 Suchdol, 165 21, Czech Republic, e-mail:

irena.schneid@gmail.com

<sup>b</sup> Scientific Research Department, Moscow Zoo, B. Gruzinskaya, 1, Moscow, 123242, Russia, e-

mail: volodinsvoc@mail.ru

<sup>c</sup> Engelhardt Institute of Molecular Biology, Russian Academy of Sciences, Moscow, 119991,

Russia, e-mail: v.matrosova@gmail.com

<sup>d</sup> Department of Vertebrate Zoology, Faculty of Biology, Lomonosov Moscow State University,

Vorobievy Gory, 12/1, Moscow, 119991, Russia, e-mail: volodinsvoc@gmail.com

\* Corresponding author.

E-mail address: irena.schneid@gmail.com

**Highlights** 

Number of alarm call elements differs between and within ground squirrel species.

European ground squirrel's alarm call contains two structurally different elements.

Both elements have high potential to encode individuality.

Combining both elements does not enhance encoded individuality.

Higher time stability of individuality can be achieved when combining both elements.

1

## Download English Version:

## https://daneshyari.com/en/article/5539652

Download Persian Version:

https://daneshyari.com/article/5539652

<u>Daneshyari.com</u>