



CHULKINA M.^{1,3}
CHYLOK@RAMBLER.RU
CHULKINA@SEVIN.RU,
VOLODIN I.^{1,2}

IS IT POSSIBLE TO RECOGNIZE BREED, INDIVIDUALITY AND SEX BY BARKS IN RUSSIAN INDIGENOUS WINDHOUNDS ?

¹DEPT. OF BIOLOGY, MOSCOW STATE UNIV., VOROBYOVI GORI, RUSSIA

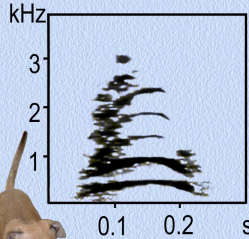
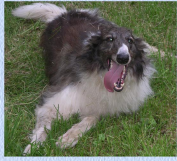
²SCIEN. RESEARCH DEPT., MOSCOW ZOO, B. GRUZINSKAYA, 1, 123242, RUSSIA

³LENINSKY PROSPECT, 33 117071 Moscow, RUSSIA



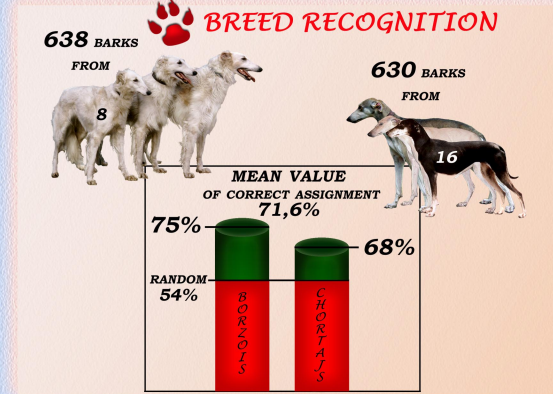
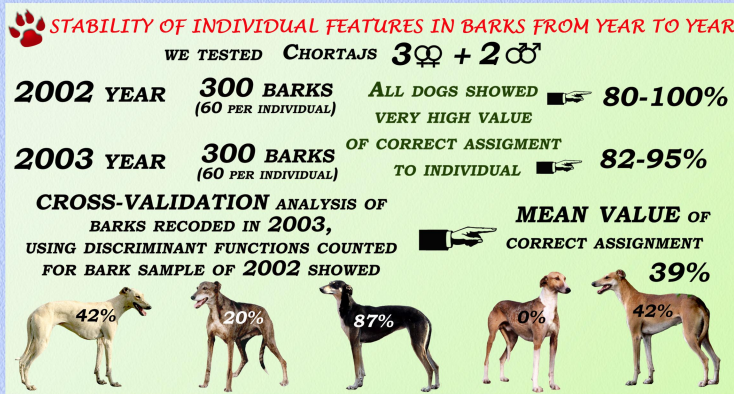
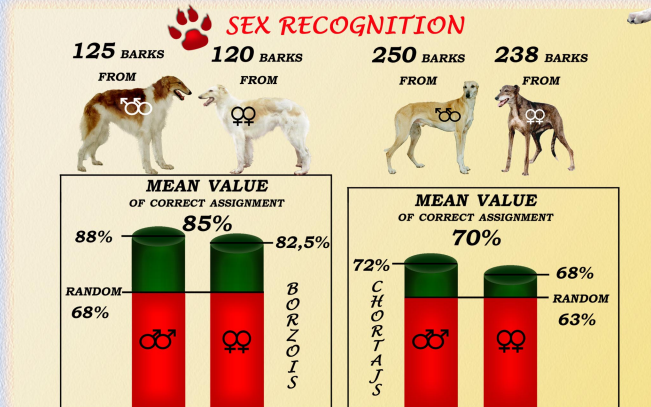
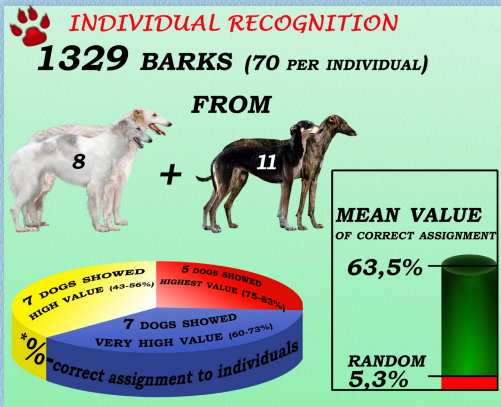
METHODS

- Our study was done at the kennel "Collection of aboriginal windhounds breeds" which belongs to Severtsov Institute of Ecology and Evolution, RAS.
- We used two Russian indigenous dog-breeds: Chortaj Windhound (18 dogs) and Russian Borzoi (8 dogs)
- Study was done during 2002- 2004.
- Sounds were recorded in standard situation ("well-known person greeting").
- 3767 barks were selected for spectrographic analysis.
- We measured 46 spectrogram parameters for each bark.
- We used DISCRIMINANT ANALYSIS for statistical treatment.



This investigation was done as a part of the Program for conservation of Russian aboriginal dog breeds, that is spending in Kennel "Collection of aboriginal windhound breeds".

RESULTS



CONCLUSIONS



- INDIVIDUAL DIFFERENCES IN BARKS EXCEED SUBSTANTIALLY INTERBREED AND INTERSEXUAL DIFFERENCES IN TWO STUDIED DOG BREEDS
- COMPARATIVELY LOW VALUE OF INTERBREED DIFFERENCE IN BARKS COULD BE CONDITIONED BY CLOSE MORPHOLOGICAL, HISTORICAL AND GENETIC SIMILARITY OF THE STUDIED BREEDS. COMPARATIVELY HIGH VALUE OF INTERSEXUAL DIFFERENCES IN BORZOIS BARKS COULD BE CAUSED BY SHOW-SELECTION PRESSURE, APPROVING THE EXISTENCE OF TWO STRICTLY DIFFERENT SEX TYPES.
- STRUCTURAL FEATURES IN BARKS VARIED IN STABILITY FROM YEAR TO YEAR IN DIFFERENT INDIVIDUALS. IN ONE CASE WE PROPOSE THAT BARKS OF ONE INDIVIDUAL ADOPTED CHARACTERISTICS OF BARKS OF A SOCIAL PARTNER.