

underneath the bird model body. The work plane of the microphone and lenses stick out of the pectus area of the model profile. The system could be effectively controlled up to a distance of 500 m. The trials demonstrated the following range of distances within which the birds in the field would let our swan approach: Lapwing -1-2 m, Herring Gull -2-5 m, Curlew -3-8 m, White-fronted Goose -8-20 m. We are now working on a small-size system with a solid model of Mallard.



## DISTRIBUTION OF BURROWS OF THE BADGER (MELES) IN EASTERN POLESYE (BRYANSK REGION)

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The badger is red-listed in Bryansk Region as a vulnerable species with declining numbers (category 2). The species occurs in all districts of the region, but its density and distribution strongly varies. The highest number of badger settlements is known in the northeast, west and southeast of the region. Overall numbers of the badger in the region are estimated at 300-350 individuals.

Materials on ecology of the badger in the region were collected during the period from 2000 to 2009. Data from scientific archives of the Bryansky Les reserve since 1988 were also analysed. In total, 41 settlements and burrows of the badger were surveyed. Of these, 16 settlements and burrows were studied within the reserve and its buffer zone (area 21840 ha).

Known burrows of the badger in the region are situated on elevated sites of terraces over floodplains (moraine, dunes, eskers). In the utter southeast, south and north of the region burrows are situated, as a rule,



in the system of ravines and gullies. The bulk of the burrows were found in sandy and loamy sand soils. Some burrows are located in the pits where firewood was burnt for coal in the past. Settlements are aged from 4-5 to 100 years and more.

The badger prefers broad-leaved forests (oak, lime, maple-ash forests), mixed coniferous-broadleafed forests (pine-oak forests) and mixed forests, more rarely – pine forests. All settlements are situated in immediate proximity to a water source (no more than 1 km). The area of settlements ranges from 200 to 3000 m<sup>2</sup>. The number of entrance holes in one settlement varies from 3 to 12 (average 5-6).



## BLACK GROUSE HABITATS IN BOREAL FORESTS (BASED **ON RADIO-TAGGING)**

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Black Grouse (Lyrurus tetrix) tagging and tracking was carried out in Pinezhsky reserve in the period from 2004 to 2008. As the result, we found 677 sites where males stayed in different seasons, and 242 sites where females with broods and non-breeding females were present.

Special focus was on such poorly studied parameters of Black Grouse ecology as assessment of the predation pressure, mortality among birds of different sex and age, estimation of breeding success and brood survival on different years. In addition, we determined how far males and females depart from the lekking site after the breeding season. We managed to identify bird movements during a year and got more accurate information about the birds' loyalty to their leks. Effort was taken to describe habitats which contained males, females with broods and non-breeding females. Distinctions were found between cocks and hens in preferences for different forest types.