王昱熙，谢彦波, Nyambayar Batbayar, 朱宝光，董树斌, Anna Barma, Anton Sasin, 曹垒 (2020) 基于卫星追踪探讨黄河流域自然保护区对 3 种水鸟栖息地的保护现状. 生物多样性, 28, 1483–1495. http://www.biodiversity-science.net/CN/10.17520/biods.2020328

附录 3　黄河流域内 3 种水鸟土地利用补充结果

Appendix 3　Supplementary results of land use of three waterfowl species in the Yellow River basin

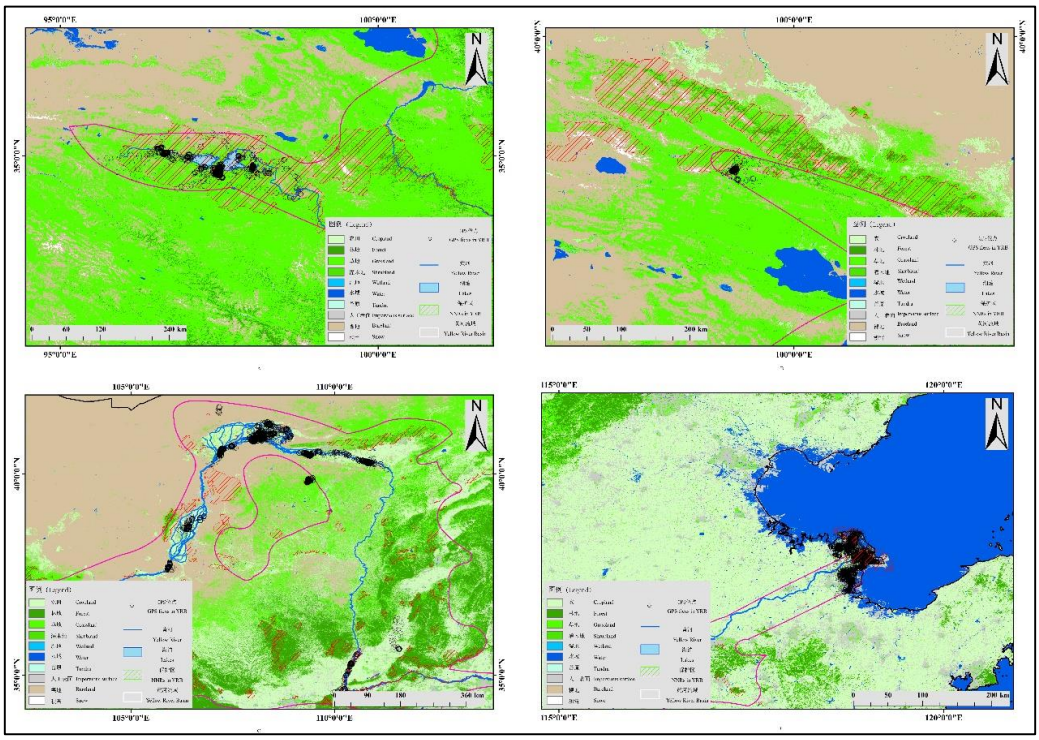

图 A1　三种水鸟在黄河流域内位点的分布情况与土地覆被利用情况。**(A)** 斑头雁在青海省木里镇区域的位点分布和土地利用情况；**(B)** 斑头雁在扎陵湖和鄂陵湖区域位点分布和土地利用情况；**(C)** 白琵鹭在黄河流域位点分布和土地利用情况；**(D)** 东方白鹳在黄河流域位点分布和土地利用情况。黑圈表示利用位点，蓝线表示黄河，紫线表示黄河流域边界，多彩阴影区表示不同的土地覆被类型（农田、森林、草地、灌木地、湿地、水体、人工地表、裸地、冰雪覆被）。

Fig. A1　Land use of the three waterbirds in Yellow River basin. (A) Points distribution and land use of Bar-headed Goose in Muli, Qinghai province; (B) Points distribution and land use of Bar-headed Goose in Zhaling Lake and Eling Lake; (C) Points distribution and land use of Eurasian Spoonbill in Yellow River basin; (D) Points distribution and land use of Oriental Stork in Yellow River Basin. The black circle indicates utilization points, the blue line indicates the Yellow River, the purple line indicates the boundary of the Yellow River basin, and the colorful shaded areas indicate different land cover types (cropland, forest, grassland, shrubland, wetland, water, impervious surface, bareland, snow).

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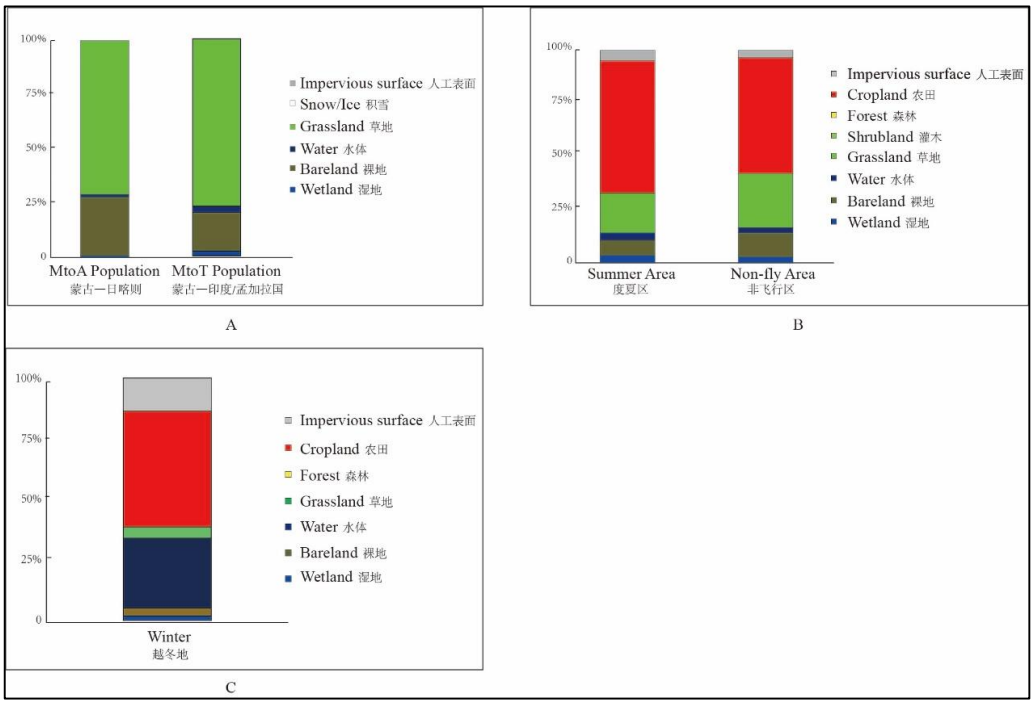

图 A2　三种水鸟在黄河流域内位点密度图中高利用率(红色与橙色）的土地利用情况。（A）斑头雁两个种群在核心密度区的土地覆被类型;（B）白琵鹭在核心密度区的土地覆被类型;（C）东方白鹳在核心密度区的土地覆被类型。

Fig. A2　Land use of the three waterbirds in high utilization rates grids (red & orange grids). (A) The land cover types of the two populations of the Bar-headed Goose in the core density area; (B) The land cover types of the Eurasian Spoonbill in the density area; (C) The land cover types of the two populations of the Oriental Stork in the core density area.