Zoophysiology Seminar

Friday, 20/11, 13.00–14.00, 1130-123

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Why singing is golden: Linking singing exercise to vocal performance in songbirds

Vocal signals, such as human speech and birdsong, rely on complex, coordinated movements that influence fitness and mate choice. While birdsong requires practice to develop and maintain, it remains unclear whether vocal muscles exhibit exercise-induced plasticity like limb muscles. Here, we show that juvenile and adult zebra finches require daily vocal exercise to develop and maintain peak vocal muscle performance. Preventing males from singing rapidly alters muscle physiology and vocal performance. Furthermore, females prefer songs from vocally exercised males. Thus, song provides an honest indicator of recent exercise investment, potentially extending to all vocalizing vertebrates.