Pollution may make birds change their tune

by Bend_Weekly_News_Sources

Nothing like a bird chirpÂ-ing in the mornÂ-ing to reÂ-mind you of natureâ€™s glory, right?Not quite. A rather creepy new reÂ-search findÂ-ing sugÂ-gests some bird songs are a bit unÂ-naturÂ-alâ€”inÂ-fluÂ-enced by polÂ-lutÂ-ants, which cause at least one species of birds to change their songs.

The European Starling. Stumus Vulgaris. Courtesy Wash. Dept. of Fish & Wildlife

Itâ€™s the latest of a number of studies to note that some of polÂ-luÂ-tionâ€™s biÂ-oÂ-logÂ-iÂ-cal efÂ-fects are not only unÂ-healthy, but biÂ-zarre. StudÂ-ies have found conÂ-tamÂ-iÂ-nants causÂ-ing sex changes, for exÂ-amÂ-ple, or even posÂ-sibly raisÂ-ing suÂ-iÂ-cide and child abuse rates.In the bird study, inÂ-tÂ-erÂ-estÂ-ingÂ-ly, reÂ-searchÂ-ers found that the reÂ-vised, more elaÂ-borÂ-ate tunes were apÂ-pealÂ-ing to female birds. But the afÂ-fectÂ-ed birds also sufÂ-fered weak imÂ-mune sysÂ-tems, the inÂ-vestÂ-iÂ-gatÂ-ors said.The sciÂ-enÂ-tists studÂ-ied male EuÂ-roÂ-peÂ-an starÂ-lings, StuÂ-mus vulÂ-garis, feedÂ-ing on earthÂ-worms at a sewÂ-age treatÂ-ment works in the southÂ-west U.K. Many of the worms were found to be conÂ-tamÂ-iÂ-nated with chemÂ-iÂ-cals siÂ-mÂ-iÂ-lar to esÂ-troÂ-gen, a horÂ-mone inÂ-volved in the deÂ-velÂ-opÂ-ment of sexÂ-uÂ-al charÂ-acÂ-terÂ-isÂ-tics.AfÂ-fectÂ-ed male birds showed marked changes in brain and behavior, inÂ-cludÂ-ing more comÂ-plex songs, which females preÂ-ferred, the reÂ-searchÂ-ers said. And a brain arÂ-ea reÂ-sponÂ-siÂ-ble for song comÂ-plexÂ-ity, called the high voÂ-cal cenÂ-tre, was alÂ-so found to be enÂ-larged in the males.This reÂ-gion is parÂ-ticÂ-uÂ-larly senÂ-siÂ-tive to esÂ-troÂ-gen, which is known to cause â€œmasÂ-culiÂ-nizaÂ-tÂ-ionâ€• of the songÂ-bird brain, acÂ-cordÂ-ing to the reÂ-search team. The stuÂ-dy, by KathÂ-erÂ-ine BuÂ-chanÂ-an of CarÂ-diff UniÂ-verÂ-sÂ-ity in the U.K. and colÂ-leagues, apÂ-peared Feb. 27 in the reÂ-search jourÂ-nal PLoS One.

Courtesy Public Library of Science and World Science staff