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## To be, or not to be, a Ligurian bee?

Humans have had a long association with the honeybee *Apis mellifera* Linnaeus, 1758, which has been exploited for production of honey and for the crop pollination services it provides. This association facilitated movement of this species to such a degree that it is now virtually ubiquitous in all areas with flowering plants and available water. On Kangaroo Island (KI), a 'sanctuary' was created for the Ligurian bee subspecies *A. mellifera ligustica*, which is exotic to Australia and the entire New World. The Ligurian Bee Act was enacted in 1885 on the basis of perceived genetic purity and isolation of KI honeybee populations, and was updated in 1931 and 1997. It supports biosecurity protocols preventing importation of bees, bee-keeping equipment and bee-related products such as honey and wax. This represents a rare example of legislative protection for an invertebrate in Australia. This legislation and the apparent isolation of KI bees from mainland bees in the time since its enactment have led to the popular assertion that KI honeybee populations represent the last 'pure' genetic population of *A. mellifera ligustica*. However, historical accounts of bee introductions to KI show that *A. mellifera mellifera*-like bees were present on KI prior to the introduction of *A. mellifera ligustica*, and that multiple *A. mellifera ligustica* introductions to KI occurred using bees of mixed heritage. Indeed, DNA sequence analyses of KI honeybees clearly indicate that while there is limited genetic diversity (supporting the assertions of limited introductions and recent geographic/ genetic isolation), they are in fact hybrids and share more similarity with the *A. mellifera mellifera* subspecies. Therefore, the relevant state legislation should be updated to remove any mention of Ligurian or other honeybee strains. However, the biosecurity protocols relating to KI should continue due to the low incidence of some honeybee diseases and the threat posed by Varroa mite.

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