

⌘ THREATENED SPECIES SCIENTIFIC COMMITTEE ⌘

The Hon Tony Burke MP
Minister for Sustainability, Environment, Water, Population and Communities
Parliament House
CANBERRA ACT 2600

Dear Minister

Re: Advice on the presence of hybrids in listed ecological communities.

You have sought advice on whether or not the existence of hybrids in a native vegetation patch that is part of a listed ecological community renders that part of the ecological community ineligible for protection.

Hybridisation among eucalypt species (i.e. members of the two closely-related genera *Eucalyptus* and *Corymbia*) was controversial a century ago. However, its occurrence is now widely accepted as part of the natural evolutionary process. In addition to eucalypt species, hybridisation is well documented in a wide range of other plants and animals.

The full extent of hybridisation among eucalypt species is still not fully understood but it is clear that related co-occurring species do often hybridise. In addition, eucalypts cultivated outside their natural range have been found to hybridise with local native species. These discoveries have made genetic and hybridisation studies an integral part of the progressive improvement in the group's taxonomy, as well as commercial eucalypt breeding.

Recent eucalypt research has three foci namely scientific curiosity about the issue, selective tree breeding and more recently the risks posed by plantation species to local native species by non-natural interbreeding. Since 1991 there has been approximately 6,200 papers published on, and around these topics for eucalypt species.

The TSSC was always aware of hybrids in communities as accepted science so in some early listing advices the Committee did not see it as an issue and did not make it explicit that the existence of natural hybrids, of any taxa, was an acceptable part of the definition of the ecological communities. In recent times all relevant listing advices contain such a statement.

The opinion of the TSSC is that the presence of natural hybrids of any taxa within any ecological community currently listed under the EPBC Act does not render the areas of the ecological community in which hybrids occur ineligible for protection.

The Committee further suggests that, rather than modifying individual listing advices to clarify this issue, a more expedient approach would be to publish the general principles presented in this letter on the Department's website. The most appropriate place would be in conjunction with the EPBC list of threatened ecological communities and/or with relevant listing advice on the Department's Species Profile and Threats Database.

Yours sincerely

Associate Professor Robert J.S. Beeton AM FEIANZ
Chair
Threatened Species Scientific Committee

20 December 2010