

**QUEENSLAND MYCOLOGICAL SOCIETY INC**

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Alexandra Hills  
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Australia

20 June 2013

Dear Mr Rickuss,

**Submission on the Nature Conservation (Plant Protection) and Other Legislation Amendment Bill 2013.**

Thank you for inviting the Queensland Mycological Society (QMS) to make a submission on the proposed changes to Nature Conservation legislation in Queensland. We are a 'not for profit' community group interested in all aspect of fungi.

Fungi play an important, but little understood, role in our world. Most tree species and many other plants (e.g. orchids) form symbiotic relationships with fungi which are important in providing water and nutrients to their plant partner. Without them they would not survive. Saprophytic fungi are key players in breaking down vegetative matter and recycling nutrients in our natural world as in agriculture and forestry. There are fungi in the digestive systems of most animals (including humans), without them they could not break down cellulose and obtain nutrients from many foods. Fungi are essential in the preparation of many foods: without yeasts there would be no bread, no wine, no beer. Fungi are the source of many important antibiotics. But despite their acknowledged importance, we still know very little about the species we have in Queensland. Many of the ones that have been studied and described have proved to be unique to our state. That is why we are responding to your consultation.

**Land clearance**

The legislative changes proposed will have the effect of allowing the clearance of large areas of land for agriculture or development without any scientific assessment or opportunity for public scrutiny. The Government seems to have taken the view that the assessments have been made and the most important conservation land has been identified on the basis of scientific evidence. This may be so for the Queensland fauna and for some groups of plants, but it is certainly not true for fungi. No assessment has been made, the minister cannot know which the important areas are for fungi. It follows that the legislative changes proposed will lower levels of protection and may well rob future generations of important biological resources through ignorance. The Queensland Mycological Society therefore strongly oppose the bill, as currently drafted, on these grounds.

## **Removing uncertainty**

The proposed legislation misses the opportunity to make clear that it covers fungi as well as plants. At the time that this legislation was first drafted, it had only just been recognised that fungi were outside the plant kingdom. Advances in our scientific knowledge and specifically genetic techniques examining DNA, have made clear that fungi are in a separate kingdom to plants although both might be encompassed by the term: 'vegetation'. The objectives of the proposed legislation are stated as being to: 'maintain or improve the current conservation status of all protected plant species in Queensland. The 'dictionary' which is a schedule to the Nature Conservation Act 1992 defines 'plant' to include fungi. We suggest that the opportunity should be taken to amend the body of the Nature Conservation Act 1992 and the Vegetation Management Act 1999 to make clear that they cover fungi as well as plants. This would meet the Minister's stated objectives and remove what other stakeholders have described as 'difficulties of interpretation' without adding any new burdens to businesses or landholders. We urge your committee to recommend this change.

## **Maintaining or improving the current conservation status of all protected plant species in Queensland**

This objective is much more difficult to achieve in relation to fungi than for plants. The real problem here is that scientific knowledge of fungi has lagged seriously behind that of plants and animals. The lack of investment in the science of mycology by successive Governments has meant that:

- up to half of all the species of fungi in Queensland (there are many more than there are plants) do not yet have a scientific name or description.
- there are no fungi currently listed as threatened, vulnerable or near threatened in Queensland, simply because we do not know them well enough.

The proposed amendments to the Nature Conservation Act 1992, in particular to S89 appear to imply that under the new regulatory framework, no fungi will be protected, even in cases where they are vital to the survival of threatened plants (e.g. orchids) or animals (e.g. potoroos). So the Ministers objective of maintaining or improving the conservation status of all protected plant species will not be met. The Minister simply cannot know which of the thousands of species in the very diverse and unique Queensland fungal flora might be important. Moreover he will not be able to claim that any action taken by landholders is an 'ecologically sustainable use' within the meaning of section 11 of the Nature Conservation Act 1992. The situation might be remedied to some degree if the Minister would make an undertaking to review and list (in the appropriate threat category) in the new regulations:

1. Those fungal species that are unique to Queensland and where at the present time there are less than 10 known sites for their occurrence or less than 25 records in the last 100 years, and
2. Those fungal species that are mycorrhizal associates of threatened, vulnerable or near threatened plants and therefore necessary to their continued survival.

### **Collecting fungi in the wild**

The second stated policy objective is that the new framework should facilitate the sustainable take, use and trade of protected plants. Much of the new framework will undoubtedly be dealt with in new secondary legislation which we have not yet seen. The collection of fungi is currently subject to a permit system. It is not clear whether the Minister intends to remove this.

The Committee should be aware that collecting of fungi for food takes place in Queensland and the permit system acts as a restraint on this activity. The 'freeing up' of use and trade of plants from the wild may encourage wider collecting of fungi and increase risks to public health from poisonings. There have been fatalities in Queensland.

Fungi contain a range of unique chemicals that are not found in plants and animals and some of these have been of interest to pharmaceutical industry who routinely collect and screen fungi. It appears that the new framework will allow this to happen freely. Given the unique fungal flora in Queensland we think consideration should be given to how these processes might be regulated under the new system to ensure that Queensland businesses and taxpayers are the main beneficiaries of any new discoveries.

Yours sincerely,

A handwritten signature in blue ink, appearing to read 'P.L. Leonard', with a long horizontal stroke extending to the right.

Patrick Leonard

Vice-President  
Queensland Mycological Society.