

BIODISCOVERY

What is Biodiscovery?

Biodiscovery is the collection and analysis of biological resources for research and/ or commercial application. This includes everything from microscopic organisms through to plants and animals.

Biodiscovery covers a range of activities, from simply finding out more about a resource, to identifying parts which could be used to develop products like pharmaceuticals. New Zealand is both a provider of these biological resources and a user of biological resources from other countries. For example, our wine industry uses grape varieties that were originally imported from outside New Zealand.

Closely related to biodiscovery is the use of traditional knowledge of indigenous and local communities around biological resources. Use of traditional knowledge in biodiscovery activities can significantly increase the chances of a successful biodiscovery outcome. This is because such knowledge can provide a strong indication that a biological resource has interesting or unique properties, which could be developed or enhanced through further research or development. Therefore, any comprehensive discussion of biodiscovery needs to consider how to acknowledge and include any use of traditional knowledge.

Why is it important?

Many of New Zealand's biological resources have unique bioactive properties that could be of significant value. This is both in terms of their role in our ecosystems and their potential value for research and development as commercial products. It is therefore important to effectively manage biodiscovery activities in New Zealand.

New Zealand is not unique in recognising the importance of effectively managing biodiscovery activities. A number of countries have biodiscovery-type legislation in place or are in the process of developing it. Meanwhile, an international set of rules for access to genetic resources and the sharing of benefits arising from their use are being negotiated under the United Nations Convention on Biological Diversity. New Zealand is taking part in these negotiations with the aim of ensuring adequate flexibility in the international rules. This will allow for the development of a New Zealand biodiscovery system that takes into account our domestic circumstances.

There are important links between biodiscovery and the Treaty of Waitangi. One of the most obvious is the 'Wai 262' Treaty of Waitangi claim brought against the Crown. Wai 262 is a claim to rights in respect of mātauranga Māori or Māori knowledge, and indigenous flora and fauna. The Tribunal's report on Wai 262 is expected to be published late in 2010 and will help guide the development of a biodiscovery system.

What does New Zealand currently do?

Due to the range of individuals, groups and organisations that have the right to grant access to biological resources in New Zealand, it is not always clear what permits are required and who to apply to when accessing biological resources.

Access to resources that are managed by the Crown (e.g. biological resources under the Conservation and Wildlife Acts, and the various marine management regimes) are granted by a range of government departments including the Department of Conservation and the Ministry of Fisheries. There are also private access providers, including iwi and regional and district authorities, that control access to biological resources in New Zealand.

For researchers or companies seeking access to our biological resources, there is no single obvious point of contact. This was highlighted by the 2000 New Zealand Biodiversity Strategy, which stated that there are gaps in how biological resources are managed in New Zealand that may be leading to New Zealand missing out on commercial opportunities.

What is being done to improve the situation?

The Ministry of Economic Development (MED) is responsible for working out how to deal with these issues through the development of a national biodiscovery policy. This policy will enhance co-ordination between potential providers of biological resources and traditional knowledge (whether government departments, iwi, private land owners, or local authorities) and those seeking access to biological resources (whether researchers from public institutions, private institutions or multinational companies).

Work that has been undertaken so far includes:

- The release of a discussion document in 2007 entitled *Bioprospecting: Harnessing Benefits for New Zealand* and subsequent consultation
- The set-up of a series of working groups in 2008 and 2009, consisting of experts across the spectrum of biodiscovery activities. This culminated in June 2009 with the establishment of a peak group called the Biodiscovery Taumata. This group meets approximately every 3 months to discuss biodiscovery issues and to assist in planning broader engagement.
- A biodiscovery 'snapshot' in 2010, investigating the scope of biodiscovery activity in New Zealand, and what agreements currently govern these activities.
- A 2010 comparison of biodiscovery policies implemented in other countries

MED wants to talk to people who are involved in biodiscovery activities either as potential access providers or users, and those who may be affected by domestic and or international biodiscovery policy. Further details of MED's biodiscovery policy work and how to get in touch can be found on our website www.med.govt.nz/biodiscovery or you can contact us directly at bioprospecting@med.govt.nz