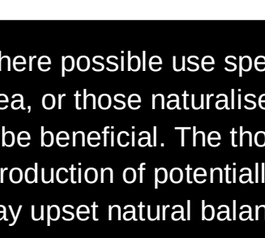
Set of Ethics on Natural Systems



Birch's Six Principles of Natural Systems:

The six principles on natural systems devised by Birch are important to consider when 'dealing with natural systems. For example, when rehabilitating a degraded area it may be necessary to introduce a very small number of selected plant species to ensure other species thrive. An example would be the planting of vines to attract butterflies or planting selected eucalyptus species to help increase the koala population in an area. "The chance that species have to survive and reproduce is dependent primarily upon one or two factors in the complex web of relations of the organism to its environment."

NOTE: For a full listing of Birch's Six Principles on Natural Systems see *Set of Ethics on Resource Management*.

BIRCH

1. MINIMISE FOOTPRINT

Leave more space and resources for other species through the establishment of plant systems for our own use on the *least* amount of land we can use for our existence.

2. CONSERVE

Implacable and uncompromising opposition to further disturbance to any remaining natural forests and intact natural ecosystems.

In any forest we should leave a section that is not managed; it is left in its natural state for wildlife habitat and forage, and to protect fragile upper slopes against erosion. These undisturbed areas are very beautiful, peaceful places, and of intrinsic worth. We are able to contemplate nature here, and to learn about ourselves in the natural world. (Mollison 1991, p.135).

In addition to the ethical reasons for conservation, natural systems need to be conserved for 'practical' reasons. We have only just begun to explore the potential medicines and products available from natural systems. They also provide us with the ultimate 'classroom'.

3. REHABILITATE

Vigorously rehabilitate degraded and damaged natural systems to a stable state.

From Seeds to Success—a bush regeneration manual for Townsville, Thuringowa and the Burdekin (2003). Available for $15 from Coastal Dry Tropics Landcare Inc. at Suite 1/65 Palmer Street, South Townsville or at <www.cdtli.org.au/publications>. They also provide a free booklet titled *Plant Species for Revegetation in the Townsville Thuringowa Region*.

4. PRESERVE

Establish plant and animal refuges for rare or threatened species.

NOTE: Rather than a separate area for rare or threatened species, individual species can be incorporated into your permaculture system.

5. AVOID INVASIVE SPECIES

Where possible use species native to the area, or those naturalised species known to be beneficial. The thoughtless introduction of potentially invasive species may upset natural balances in your home area.

Note: unwanted rampancy is a problem to be especially aware of (and control) when using hardy and self-reliant species.

Some species noted in a number of permaculture books that are either potential or classified weed species in the Townsville region include leucaena, Indian jujube (related to Chinee Apple), tamarind and guava. Before incorporating *any* species into your system ensure it is not a locally invasive species. The *From Seeds to Success* book mentioned below contains an invaluable list of weeds of the Townsville/Thuringowa region.

Species of local conservation significance in Townsville/Thuringowa region

Species	Family	Notes
Anoectochilus yatesiae	Orchidaceae	Ground orchid restricted to tropical highland rainforest
Aristolochia pubera var "Mt Stuart"	Aristolochiaceae	Small vine possibly restricted to Townsville region
Brachystelma glabriflorum	Asclepiadaceae	Locally uncommon tuberous herb of tropical Australia
Corchorus subargenteus	Tiliaceae	Small shrub known only from western Paluma Range
Cycas candida	Cycadaceae	Cycad known only from eastern Paluma Range
Ehretia grahamii	Boraginaceae	Very uncommon small tree of vine thickets
Grewia australis	Tiliaceae	Very uncommon small tree of vine thickets
Habenaria praecox	Orchidaceae	Very uncommon ground orchid
Helichrysum newcastlianum var "Bluewater Creek"	Asteraceae	Daisy known only from Paluma Range
Hibbertia sp "Mt Zero"	Dilleniaceae	Small shrub known only from western Paluma Range
Hibiscus phyllochlaenus	Malvaceae	Locally uncommon Hibiscus
Palmeria hypotrepha	Monimiaceae	Locally uncommon rainforest vine
Proiphys infundibularis	Amaryllidaceae	Vine thicket lily known only from Townsville to Home Hill
Sauropus anemoniflorus	Euphorbiaceae	Known only from western Paluma Range
Stephania bancroftii	Menispermaceae	Locally uncommon tuberous vine of vine thickets
Vallisneria nana	Hydrocharitaceae	Locally uncommon waterplant
Wrightia versicolor	Apocynaceae	Locally uncommon small tree of vine thickets

From: *Rare and threatened plants of the Townsville Thuringowa Region*. This book is a guide to the 40 most rare and threatened plants in the Townsville region in north-east Queensland. Find out if there are similar books available in your own country, and where possible seek local knowledge of native food plants that will grow in your area. In Australia many indigenous Aboriginal people still living on traditional lands still have a deep knowledge of the local food plants.