

Dear Biodiversity Review Panel,

I write to comment on the Issues Paper drafted by the Biodiversity Review Panel.

"Biodiversity matters profoundly to human health, and in almost every conceivable way. The mismanagement and destruction of species and ecosystems ongoing around the world mindlessly, and needlessly, lower the quality of the planet's natural resources, destabilize the physical environment, and can hasten the spread of human infectious diseases and the invasive enemies of the crops and forests on which our lives depend." (Sustaining Life: How Human Health Depends on Biodiversity, E. Chivian and A. Bernstein eds, 2008)

Please consider the following remarkable Australian example.

Gastric brooding frogs (*Rheobatrachus vitellinus* and *R. silus*), the only amphibians known to raise their young in their stomachs, were discovered in the 1980s in undisturbed rainforests in Australia. The female swallows her fertilized eggs, which then hatch in her stomach. When the hatchlings become fully developed tadpoles, they are "delivered" to the outside world, propelled by their mothers vomiting, where they continue their development into adult frogs. The stomachs of all vertebrate species, including frogs, contain cells that secrete acid and enzymes such as pepsin to begin the process of digesting food. There are also compounds that stimulate emptying of the stomach so that its contents can be moved along into the small intestine where further digestion takes place. The ingestion of food triggers the release of these compounds. Preliminary studies with gastric brooding frog tadpoles demonstrated that they secrete a substance, or substances, that both inhibits acid and pepsin secretions and prevents stomach emptying so that they do not end up being digested by their mother. But these studies, which might have led to important new insights for treating human peptic ulcers, a disease that affects more than twenty-five million people in the United States alone, could not be continued both species of *Rheobatrachus* became extinct.

The UN decade on biodiversity, which began in 2011, recognises the global challenge posed by the dramatic decline in species. NSW is contributing to this trend and the Review into conservation legislation is an opportunity to reverse that.

The Review must set a clear goal to reverse the decline in biodiversity and restore ecosystem function across NSW. Below is an overview of significant issues that must be addressed by the Review.

Existing protections are not enough.

Existing biodiversity and conservation laws, including the Native Vegetation Act 2003 and Threatened Species Conservation Act 1995, must be maintained and strengthened. This includes a clear commitment to end broad-scale land clearing across NSW, and a commitment to 'no net loss' of native vegetation.

The existing framework of conservation legislation has slowed biodiversity loss, but it is not enough to stop species' decline.

Objective decision making must lead to improved environmental outcomes

The principle of "improving or maintaining" environmental outcomes should be retained, and extended so that it applies to all development activities.

Decisions must be based on objective science-based decision making criteria (e.g. Environment Outcomes Assessment Methodology under the NV Act), and discretionary decision making should be very limited.

Biodiversity offsetting must be done well

The purpose of offsetting is to ensure than any development that affects biodiversity leads to an overall improvement for wildlife and species. It is important that rules around biodiversity offsetting reflect this key principle.

Where development is approved that significantly impacts native flora or fauna, the 'like for like' offsetting principle is fundamental and must not be weakened.

Retain the Independent Scientific Committee

The role of the Independent Scientific Committee under the Threatened Species Conservation Act, to decide which species are threatened and deserve special protection, should be retained. Listing of threatened species must continue to be based on the professional advice of the Scientific Committee.

Summary

This review provides a rare opportunity for improving our conservation and biodiversity legislation for posterity. It is absolutely critical that we use this opportunity by taking an evidence- based and scientific approach with a goal towards improving biodiversity across New South Wales.

Yours sincerely,
Peter Coyne