



ABN: 34 097 016 496

Mr Al Oshlack,  
Indigenous Justice Advocacy Network  
Tel: 0415 140 410  
Email: al.oshlack@ijan.com.au

2 August 2009

Dear Mr Oshlack,

**Re: Comments On The Ecological Impact Assessment Of The Proposed World Rally Championship (Repco Rally Australia) In The Northern Rivers Region Of NSW.**

Thank you for inviting me to review and comment on the ecological assessment of the world car rally event (Repco Rally Australia), which is proposed to be held within the Tweed and Kyogle Local Government Areas (LGAs).

The following documents were reviewed for the purposes of this statement:

Biolink (2009a). Ecological Assessment – proposed World Championship event in parts of Kyogle Local Government Area. Report prepared by Biolink Ecological Consultants for Repco Rally Australia (dated 27 April 2009).

Biolink (2009b). Ecological Assessment – proposed World Championship event in parts of Tweed Local Government Area. Report prepared by Biolink Ecological Consultants for Repco Rally Australia (dated 29 April 2009).

Biolink (2009c). Koala Plan of Management for proposed World Championship Rally activities in parts of Kyogle Local Government Area. Report prepared by Biolink Ecological Consultants for Repco Rally Australia (dated 20 April 2009).

Biolink (2009d). Koala Plan of Management for proposed World Championship Rally activities in parts of Tweed Local Government Area. Report prepared by Biolink Ecological Consultants for Repco Rally Australia (dated 20 April 2009).

It is my professional opinion that the ecological assessment of the Repco Rally Event, as documented in the above-mentioned reports is grossly inadequate for the reasons stated below. **Most notably, it is my opinion that the assessment has inadequately predicted the true extent of the impacts of the Repco Rally Event on matters of national environmental significance, and there is a need to refer the proposal to the Commonwealth Minister for the Environment for approval under the Commonwealth *Environment Protection and Biodiversity Conservation Act, 1999* (EPBC Act).**

---

**Postal Address: Ambrose Ecological Services Pty Ltd, PO Box 246, Ryde, NSW 1680**  
**Office Address: Suite 9, 64-66 Cressy Road, Ryde, NSW 2112.**  
**Tel: (02) 9808 1236. Fax: (02) 9807 6865. Email: [stephen@ambecol.com.au](mailto:stephen@ambecol.com.au)**

## 1. OVERVIEW

Repco Rally Australia is proposed for 3-6 September 2009 and will cover just under 350 km in competition roads in the Tweed and Kyogle Local Government Areas. It is proposed that this event be held biannually, on five separate occasions, through to 2019. It is my understanding that there are 10 proposed racing stages in the Kyogle LGA and six stages in the Tweed LGA, some of these stages occurring in high-value conservation areas, including national parks.

The NSW *Motor Sports (World Rally Championship) Act, 2009* [MS(MRC) Act] gives approval to the Repco Rally Australia Event under NSW legislation. Under Part 3 of the MS(MRC) Act, the Repco Rally Event cannot be prohibited, require a development consent or be restricted in carrying out rally-related activities under NSW legislation, or its instruments, that normally protect the natural environment, namely the *Environmental Planning and Assessment Act, 1979* (EP&A Act), *National Parks and Wildlife Act, 1974* (NP&W Act), *Fisheries Management Act, 1994* (FM Act), *Forestry Act, 1916* (Fy Act), *Water Management Act, 2000* (WM Act), *Crown Lands Act, 1989* (CL Act) and *Local Government Act, 1993* (LG Act). However, there is still a requirement to refer the proposal to the Commonwealth Minister for the Environment for approval under the EPBC Act if there is a potential that the racing event will have a significant impact on matters of national environmental significance.

It should be noted that precedence for the referral of an international car racing event for approval under the EPBC Act has been set by the organisers of the V8 Supercar 400 Event, which will be held at Sydney Olympic Park on 3-5 December 2009. The NSW *Homebush Motor Racing (Sydney 400) Act, 2008* affords special protection to the V8 Supercar 400 Event from the effects of NSW planning and environmental legislation that normally protect the natural and urban environments. However, there was still a need to refer the proposal for this event to the Commonwealth Minister for the Environment because of the potential impacts on matters of national environmental significance (i.e. potential impacts on nationally-threatened migratory shorebirds, and the nationally-threatened Green and Golden Bell Frog *Litoria aurea* and Grey-headed Flying-fox *Pteropus poliocephalus*). Documentation that formed part of that referral can be viewed on the project referrals list page (Proposal Reference No. 2009/4782) of the Department of Environment, Water, Heritage and the Arts (DEWHA) website [www.environment.gov.au/epbc/assessments/referral-decision.html](http://www.environment.gov.au/epbc/assessments/referral-decision.html). I have first-hand experience of this project because I prepared the impact assessment documents (in relation to threatened and migratory shorebirds and the Grey-headed Flying-fox) for the V8 Supercar 400 Event, and these were referred to the Commonwealth Environment Minister for approval.

## 2. NATIONALLY-ENDANGERED SPECIES

### 2.1 Overview

Under the EPBC Act, a nationally endangered species is significantly impacted on if a proposal is likely to:

- lead to a long-term decrease in the size of a population; or
- reduce the area of occupancy of a species; or
- fragment an existing population into two or more populations; or

- adversely affect habitat critical to the survival of a species; or
- disrupt the breeding cycle of a population; or
- modify, destroy, remove, isolate or decrease the availability or quality of habitat to the extent that the species is likely to decline; or
- result in invasive species that are harmful to a endangered species becoming established in the endangered species' habitat; or
- interfere substantially with the recovery of a species.

There are four nationally-endangered fauna species that occur or potentially occur along or near the rally circuit. These are the Giant Barred Frog (*Mixophyes iteratus*), Fleays Barred Frog (*Mixophyes fleayi*), Eastern Bristlebird (*Dasyornis brachypterus*) and Spotted-tailed Quoll (*Dasyurus maculatus*).

## 2.2 Potential Impacts on Endangered Frog Species

North-eastern NSW is considered to be a stronghold for populations of the Giant Barred Frog and Fleays Barred Frog. Viable breeding populations of the Giant Barred Frog occur in Peacock Creek and Byrill Creek Catchment Areas. Viable breeding populations of Fleays Barred Frog occur within the Byrill Creek Catchment Area.

Recognised threats to each of these species include:

- Reduction in water quality, from sedimentation or pollution.
- Changes in water flow patterns, either increased or decreased flows.
- Reduction of leaf-litter and fallen log cover through burning.
- Timber harvesting and other forestry practices.
- Vegetation clearance.
- Predation on eggs and tadpoles by introduced fish.
- Weed spraying close to streams.
- Chytrid fungal disease.

The Repco Rally is planned to occur within the Peacock Creek and Byrill Creek areas. There is a significant risk of aquatic habitats (shallow, flowing streams) and moist terrestrial habitats (damp leaf litter in rainforests, moist eucalypt forest and nearby dry eucalypt forest) of these species becoming degraded as a result of the settling of airborne soils and dust that result from the car racing activities, sediment runoff from the racing circuit in the event of wet weather, pollution runoff from accidental oil and petrol spills, and runoff of tyre and oil residues from hard road surfaces into habitat areas.

The Repco Rally occurs at the beginning of the peak breeding period for each of these species (September-February). Therefore, it is when eggs and larvae (tadpoles), the life stages that are most vulnerable to sedimentation and pollution effects, are likely to be present in habitats that are at risk of being impacted. However, these sediments and pollutants also have the potential to accumulate in habitat areas with each successive biannual racing event, compounding these impacts over the longer-term. The cumulative impacts of successive Repco Rally Events have not been considered in Biolink (2009a&b).

Biolink has recommended the placement of sediment fencing in all localities where road works are proposed, and the placement of floating barriers no less than 24 hours prior to the start of the race event. The sediment fences are likely to be effective in containing sediment runoff during road works. However, it is not apparent from the proposal where the road works will occur and what lengths of sediment fencing are required. If lengthy areas of sediment fencing are used for lengthy periods of time, then there is a risk of the natural dispersal of adult frogs across terrestrial habitats, and thus impacting on natural gene flows within and between populations.

Floating barriers are unlikely to contain roadside pollutants (oils, petrol spills, tyre residues) in the event of heavy rains. Neither sediment fences nor floating barriers will be effective in containing aerial particulates (soil and dust) that are likely to occur as a result of road works and car racing.

The chytrid fungus attacks the keratinised parts of a frog's skin, thus making it difficult for it to breathe (a significant amount of a frog's respiration occurs across the skin). It also damages the nervous system, thus affecting the frog's behaviour. The fungus has been known to be carried into previously uninfected frog habitat areas on peoples' wet and muddy boots and tyres of vehicles. Therefore, there is a risk of the fungus spreading across a large area of frog habitat as a result of being carried on the tyres of racing cars, and vehicles and muddy and wet boots of large numbers of spectators. The impact of the chytrid fungus as a result of the Repco Rally was not considered in Biolink (2009a & b).

Therefore, there is a potential risk of the Repco Rally impacting on the national status of the Giant Barred Frog, Fleays Barred Frog and Stuttering Frog by:

- reducing the area of occupancy of the species (unsuitability of habitat through pollution and sedimentation) and, in the case of the Stuttering Frog, through potentially reducing its geographical range;
- disrupting the breeding cycle of a population; and
- modifying, destroying, removing, isolating or decreasing the availability of quality of habitat to the extent that the species is likely to decline.

### **2.3 Potential Impacts on the Eastern Bristlebird**

Biolink (2009b) indicated that the Eastern Bristlebird is likely to occur near the Lynches stage of the Repco Rally in the Kyogle LGA. This bird is a secretive species, which is often difficult to detect, favouring rainforests and wet sclerophyll forests with a shrubby formation. Only 35 Eastern Bristlebirds are known to occur in the northern NSW/southern Qld border area. It is only usually readily detectable during the breeding season (September to January), when individual birds are active, inquisitive and less timid. The timing, nature and effort of fauna surveys conducted by Biolink in the Kyogle LGA [337 individual field sites at either 250 m or 500 m intervals across c. 360 person hours from January to April 2009 (outside the peak breeding period for the Eastern Bristlebird)] would be insufficient to detect all Eastern Bristlebirds that may occur alongside or close to the race circuit.

Recognised threats to the status of Eastern Bristlebird and its habitat in northern NSW are:

- extensive and intense bushfires in Eastern Bristlebird habitat;
- extensive and intense bushfires, particularly in northern NSW. Eastern Bristlebirds are weak fliers and few individuals are likely to survive an intense fire event;
- insufficient bushfire frequency, i.e. the usual habitat require a bushfire regime of 7-10 years;
- habitat loss and fragmentation as a result of clearing;
- predation by cats and foxes;
- road kills;
- grazing and trampling of habitat by livestock;
- invasion of suitable habitat by weeds, such as Lantana, Crofton Weed and Mistflower in northern NSW.

With such a small population occurring in northern NSW/southern Qld, it is essential to prevent any significant impacts occurring from the Repco Rally and any significant disturbances or mortality to Eastern Bristlebirds as a result of this event would be unacceptable.

Eastern Bristlebirds are sedentary species, occupying home ranges of between 1 and 4 ha, but seldom more than 2.5 ha. Individuals that have territories near roads and tracks are known to cross these areas, provided that the widths are not more than 100 m. Therefore, if a territory of an Eastern Bristlebird, or pair of birds, is located near the racing circuit, there is an increased risk of it being killed or injured by a racing rally car.

If Eastern Bristlebirds are nesting at the time of the Repco Rally, then they are likely to be sitting on eggs because it would be the start of the breeding season. Bird species, generally, desert their nests easily when disturbed. The noise of racing rally cars, the presence of large numbers of spectators, and the noise of low-flying helicopters, could cause Eastern Bristlebirds that are nesting within 250 m of the race circuit to desert their nests.

Although rally car crashes may potentially cause localised bushfires, I am satisfied that they would be controlled quickly enough to prevent extensive and intense bushfires occurring in Eastern Bristlebird habitat, especially because the Repco Rally will occur outside the usual bushfire season.

Therefore, there is a potential of the Repco Rally significantly impacting on the national status of Eastern Bristlebird by:

- leading to a long-term decrease in the size of a population; and
- disrupting the breeding cycle of a population.

## **2.4 Potential Impacts on the Spotted-tailed Quoll.**

Biolink (2009a) concluded that the Repco Rally has the potential to significantly impact on the status of the Spotted-tailed Quoll in the Urliup stage of the rally in the Tweed Local Government Area, by:

- reducing the area of occupancy of the species; and
- disrupting the breeding cycle of a population.

This conclusion alone is enough to trigger the need to refer the proposal to the Commonwealth Minister for the Environment for approval.

It is not clear from the documentation why Biolink (2009a&b) conclude that the Repco Rally would not have a potential significant on the status of the Spotted-tailed Quoll populations located near other race stages, namely the Capeen, Peacock, Byrill Creek and Upper Clarence stages where, based on the evidence presented in the reports, it is my opinion that the potential threats that occur in Urliup are likely to exist also.

### 3. NATIONALLY-VULNERABLE SPECIES

#### 3.1 Overview

Under the EPBC Act, a nationally vulnerable species is significantly impacted on if a proposal is likely to:

- lead to a long-term decrease in the size of an important population of a species; or
- reduce the area of occupancy of an important population; or
- fragment an existing important population into two or more populations; or
- adversely affect habitat critical to the survival of a species; or
- disrupt the breeding cycle of an important population; or
- modify, destroy, remove, isolate or decrease the availability or quality of habitat to the extent that the species is likely to decline; or
- result in invasive species that are harmful to a vulnerable species becoming established in the vulnerable species' habitat; or
- interfere substantially with the recovery of a species.

There are at least eight nationally-vulnerable fauna species that occur or potentially occur along or near the rally circuit. These are the Stuttering Frog (*Mixophyes balbus*), Three-toed Snake-tooth Skink (*Coeranoscincus reticulatus*), Black-breasted Button-quail (*Turnix melanogaster*), Red Goshawk (*Erythrotriorchis radiatus*), Albert's Lyrebird (*Menura alberti*), Long-nosed Potoroo (*Potourus tridactylus*), Grey-headed Flying-fox (*Pteropus poliocephalus*) and Large-eared Pied Bat (*Chalinolobus dwyeri*).

#### 3.2 Potential Impacts on the Stuttering Barred Frog

Biolink (2009a) refers to a record of the Stuttering Frog occurring at Byrill Creek. If this record is correct, then it is north and east of the known present range of this species in NSW. Within the Northern Rivers Area, it is known presently to occur on the Armidale Plateau (east of Chandler River), and (from climate and habitat modelling) is predicted to occur in the Carrai Plateau, Cataract, Guy Fawkes, Walcha Plateau Catchment Management Area Sub-regions.

Potential significant impacts to the status of the Stuttering Barred Frog as a result of the Repco Rally are likely to be the same as those acting on nationally endangered frog species:

- leading to a long-term decrease in the size of an important population of a species;



- reducing the area of occupancy of an important population;
- disrupting the breeding cycle of an important population; and
- modifying, destroying, removing, isolating or decreasing the availability or quality of habitat to the extent that the species is likely to decline.

### 3.3 Potential Impacts on the Three-toed Snake-toothed Skink

The Three-toed Snake-toothed Skink has been recorded from several locations within rainforests and wet sclerophyll forests within the Cataract Catchment Management Area Sub-region, particularly within the Richmond Range. Potential habitat for this species occurs within the Capeen and Peacock stages of the Repco Rally within the Tweed LGA. However, potential impacts of the proposal were not considered in Biolink (2009a).

Good quality potential habitat for the Three-toed Snake-toothed Skink occurs within Richmond Range National Park, through which part of the Capeen stage of the Repco Rally occurs. No targeted surveys for the Three-toed Snake-toothed Skink were conducted by Biolink and there is no recognition in the reports of the potential importance of this habitat area for this species.

Significant impacts to the national status of this species that may potentially result from the Repco Rally include:

- increased road kills (resulting in a reduced area of occupancy of an important population);
- destruction of important habitat along road edges as a result of upgrading the quality of sections of the road through Richmond Range National Park (i.e. modifying, destroying, removing, isolating or decreasing the availability or quality of habitat to the extent that the species is likely to decline); and
- increased invasion of weeds into important habitat areas as a result of road works (i.e. invasive species that are harmful to a vulnerable species becoming established in the vulnerable species' habitat).

### 3.4 Potential Impacts on Nationally Vulnerable Bird Species

The Black-breasted Button-quail occurs only in south-east Queensland and north-eastern NSW, where it occurs in drier rainforests and viney scrubs. In NSW it is restricted to the Northern Rivers and Tableland area only, and is recorded regularly in the Mebbin and Byrill Creek Areas, where the Byrill Creek stage of the Repco Rally is to occur. The Repco Rally will be at the start of the usual breeding season for this species (September to April). The usual home range of a nesting pair of Black-breasted Button-quails is *c.* 1.5 ha, therefore there is a significant risk of nest desertion in the event of significant local disturbances.

Potential significant impacts of the Repco Rally on the status of the Black-breasted Button-quail are the same as for the Eastern Bristlebird (see Section 2.3) because they are both weak fliers, may cross open roads and tracks and have the potential of nesting in suitable habitat areas alongside some sections of the rally circuit. Therefore, in respect to the Black-breasted Button-quail, the Repco Rally has the potential of:

- increased road kills (resulting in a reduced area of occupancy of an important population); and

- disrupting the breeding cycle of an important population, if this species is nesting in areas nearby rally and spectator areas at the time of the event.

The Albert's Lyrebird is restricted to the south-eastern corner of Qld and far north-eastern NSW, where it occurs in mixed forest and wet open forest. In NSW, this species occurs in the Northern Rivers Area only, occurring west to the Acacia Plateau in the Border Ranges and reaching its eastern and southern limits in the coastal range south-west of Ballina. I agree with Dr Mark Graham's (July 2009) statement that the Repco Rally Route will pass through the following areas which, collectively, are stronghold areas for the national status of the Albert's Lyrebird:

1. Eastern McPherson Range/Springbock/Urliup Area: the most easterly populations along the NSW/Qld border (Urliup stage of the Repco Rally);
2. Mt Warning/Wollumbin/Mebbin/Border Ranges Area: important wildlife corridor for the dispersal of Albert's Lyrebirds (Byrill Creek stage of the Repco Rally); and
3. Toonumbar/Richmond Range/Dome Mountain Area: likely to be densely populated by Albert's Lyrebirds (Clarence, Capeen and Peacock stages of the Repco Rally).

The usual breeding season of the Albert's Lyrebird is from May to August, so the Repco Rally is unlikely to disrupt the breeding cycle of important populations. However, there may be some localised disturbances to nesting in the road works phases (use of loud machinery, destruction of breeding habitat during road upgrades) leading up to the Repco Rally Event.

However, the major significant impacts on the national status of the Albert's Lyrebird that may result from the Repco Rally, especially cumulative impacts as a result of successive rallies are:

- increased road kills (resulting in a reduced area of occupancy of an important population). Biolink's recommendation to use a hand-held air-horn to deter Albert's Lyrebirds from crossing roads at the time of the Repco Rally is unlikely to be effective. Lyrebirds tend to run along the edges of open roads and tracks for several hundred metres before heading away from them when disturbed, thus increasing their chances of being killed on the road by a fast-moving rally car. The Repco Rally also occurs immediately after the breeding season of the Albert's Lyrebird, when there are likely to be juvenile birds who have not yet learnt how to avoid cars; and
- trampling of good-quality habitat by large numbers of spectators along the rally circuit (modification, destruction, removal, isolation or decreasing the availability or quality of habitat to the extent that the species is likely to decline).

The Red Goshawk occurs across northern Australian, south through eastern Queensland to far north-east NSW. The species is very rare in NSW, with most records occurring from the Clarence River Catchment, with a few about the lower Richmond and Tweed Rivers. It is unlikely that the Repco Rally would significantly impact on the national status of this species unless individuals are nesting in trees close to the race circuit and are subsequently disturbed by rally cars or spectators. The likelihood of Red Goshawks nesting in these areas is minimal, even though the rally is at the start of the breeding season. However, as a precaution, a search for Red Goshawk nests should be conducted in the week prior to the Repco Rally in



suitable habitat areas along the rally circuit. That part of the circuit should not be used for the rally if such surveys detect nesting Red Goshawks nearby.

### 3.5 Potential Impacts on Nationally Vulnerable Mammal Species

The south-eastern mainland population of the Long-nosed Potoroo is listed as Vulnerable under the schedules of the EPBC Act. A population of Long-nosed Potoroos is known from the Tweed LGA in a small area of Crown land between the northern shore of Cobaki Broadwater and the NSW-Queensland border. The area occupied by this population is defined by the localities of Cobaki Lakes and Tweed Heads West.

Long-nosed Potoroos are generally restricted to areas with an annual rainfall greater than 760 mm where they inhabit dry and wet sclerophyll forests and woodland with a heathy understorey, with the preferred habitat in north eastern NSW being dry and wet open shubland. The species requires relatively thick ground cover growing on friable soils. The Cobaki Lakes and Tweed Heads West population occupies an area of forest-heathland of between 100 and 150ha and the total population is estimated to number less than 100 individuals.

Biolink appears to discount the likelihood of any impacts of the Repco Rally on the status of this species on the basis that the rally circuit does not occur near the known habitat area of the Cobaki Lakes and Tweed Heads West population. However, there are records known from Toonumbar Dam, Bungdoozle and Cudgen, and connective, high-quality potential habitat for this species also occurs along the Richmond Range. Therefore, Toonumbar and Capeen stages of the Repco Rally pass through known habitat areas of this species, and the Peacock and Upper Clarence stages pass through potential habitat areas.

The Repco Rally can potentially reduce the area of occupancy of an important population of Long-nosed Potoroos through:

- increased road kills from racing rally cars and vehicles of spectators attending the Repco Rally;
- Fragmentation of known habitat by the creation of a new road for parts of the Capeen stage of Repco Rally. It is not known how effective roads are as barriers to the movement of Long-nosed Potoroos through preferred habitat areas, but it is my opinion that potoroos may be reluctant to cross open areas that do not contain a heathy understorey.

The favoured diet of the Long-nosed Potoroo comprises the fruit-bodies of hypogeous (underground-fruiting) fungi. They also eat roots, tubers, insects and their larvae and other soft-bodied animals in the soil. There is an increased risk of high-quality habitat of Long-nosed Potoroos being invaded by weeds as a result of road construction (especially in the Capeen stage), and the transfer of weed material on car tyres and clothing of spectators. Heavy weed infestations can competitively host plant species of fungi from growing in an area and also create physical barriers that restrict the movements of potoroos through habitat areas. Therefore, there is a significant risk of the Repco Rally resulting in invasive species that are harmful to a vulnerable species becoming established in the vulnerable species' habitat.

Loud noise associated with the Repco Rally (e.g. noisy rally vehicles, helicopters flying overhead, spectator noise, heavy machinery noise during road works) may temporarily result in Long-nosed Potoroos avoiding

some habitat areas near the rally circuit. This alone, is unlikely to have a significant impact on the breeding cycle of the local population of Long-nosed Potoroo. However, such disturbances may add to the cumulative physiological stress of these macropods, and macropods are known to reduce or suspend breeding when stressed. Thus, there is a potential for the breeding cycle of the local Long-nosed Potoroo population to be disrupted as a result of increased mortality (road kills) and physiological stress caused by road works and repeated rally events.

Grey-headed Flying-fox maternity camp at Bray Park is about 300 metres from the rally circuit in Murwillumbah stage of the Repco Rally, in the Tweed LGA. It is one of only three main maternity camps of the Grey-headed Flying-fox occurring within the Tweed LGA. Loud disturbances are known to impact on the breeding success of Grey-headed Flying-foxes, especially in early pregnancy (May to July, inclusive) when there is a risk of mothers aborting their young, and early in the suckling (lactating) period (September to November, inclusive) when mothers can abandon their newborn young. The Repco Rally has the potential of disrupting the breeding cycle of an important population of Grey-headed Flying-foxes by causing:

1. pregnant mothers to abort fetuses if noisy road works (e.g. the use of jack hammers, loud electric tools and/or heavy plant) occur near the camp in the few months leading up to the start of the Repco Rally; and
2. lactating mothers to abandon young during the early lactation phase, as a result of loud noises generated by noisy rally cars, noisy helicopters flying low over and near the maternity camp, loud sirens, and noisy spectators. This impact alone is sufficient to trigger the need for the Repco Rally proposal to be referred to the Commonwealth Environment Minister for approval.

No caves known to contain significant Large-eared Pied Bat maternity roosts near the Repco Rally circuit. Therefore, it is unlikely that the proposal will have a significant impact on the national status of this species.

#### **4. NATIONALLY-LISTED MIGRATORY SPECIES**

Biolink has not indicated what migratory species, listed under the schedules of the EPBC Act, actually occur within 5 km of the Repco Rally circuit. Consequently, there is no assessment of the potential impacts of the proposal on nationally-listed migratory species.

Under the EPBC Act, a migratory species is significantly impacted on if a proposal will or is likely to:

- substantially modify (including by fragmenting, altering fire regimes, altering nutrient cycles or altering hydrological cycles), destroy or isolate an area of important habitat of the migratory species; or
- result in invasive species that are harmful to the migratory species becoming established in an area of important habitat of the migratory species; or

- seriously disrupt the life cycle (breeding, feeding, migration or resting behaviour) of an ecologically significant proportion of the population of the species.

There are at least 34 nationally-listed terrestrial migratory species that are known to occur within the Tweed and Kyogle LGAs and which have the potential to be impacted by the Repco Rally. These are:

Australian Wood Duck (*Chenonetta jubata*), Cattle Egret (*Bulbucus ibis*), Glossy Ibis (*Plegadis falcinellus*), Latham's Snipe (*Gallinago hardwickii*), Osprey (*Pandion haliaetus*), Collared Sparrowhawk (*Accipiter cirrhocephalus*), Brown Goshawk (*Accipiter fasciatus*), Grey Goshawk (*Accipiter novaehollandiae*), Red Goshawk (*Erythrotriorchis radiatus*), White-bellied Sea-eagle (*Haliaeetus leucogaster*), Wedge-tailed Eagle (*Aquila audax*), Little Eagle (*Hieraaetus morphnoides*), Pacific Baza (*Aviceda subcristata*), Swamp Harrier (*Circus approximans*), Spotted Harrier (*Circus assimilis*), Black-shouldered Kite (*Elanus axillaris*), Brahminy Kite (*Haliastur indus*), Whistling Kite (*Haliastur sphenurus*), Square-tailed Kite (*Lophoictinia isura*), Brown Falcon (*Falco berigora*), Australian Kestrel (*Falco cenchroides*), Australian Hobby (*Falco longipennis*), Peregrine Falcon (*Falco peregrinus*), Oriental Cuckoo (*Cuculus saturatus*), Rainbow Bee-eater (*Merops ornatus*), Fork-tailed Swift (*Apus pacificus*), White-throated Needletail (*Hirundapus caudacutus*), Russett-tailed Thrush (*Zoothera heinei*), Cicadabird (*Coracina tenuirostris*), Australian Reed-warbler (*Acrocephalus australis*), Brown Songlark (*Cinclorhamphus cruralis*), Tawny Grassbird (*Megalurus timoriensis*), Little Grassbird (*Megalurus gramineus*) and Golden-headed Cisticola (*Cisticola exilis*).

It is not possible to assess the potential nature and magnitude of the impacts on the above-mentioned species on the basis of the information provided in Biolink (2009a&b). Therefore, the onus is placed on the proponent to conduct that assessment as part of the referral of the proposal to the Commonwealth Minister for the Environment.

## 5. NATIONALLY-THREATENED PLANT SPECIES

Biolink (2009a) states that flora and fauna surveys were conducted at 136 individual field sites, located either at 250 m or 500 m intervals, amounting to 190 person hours of survey time, along the Repco Rally circuit in the Tweed LGA. These surveys were conducted between January and April 2009.

Biolink (2009b) states that flora and fauna surveys were conducted at 337 individual field sites, located either at 250 m or 500 m intervals, amounting to c. 360 person hours of survey time, along the Repco Rally circuit in the Kyogle LGA. These surveys were conducted between January and April 2009.

It is my understanding that the length of the Repco Rally circuit is c. 350 km. It is not possible to ascertain from the reports what proportion of the 550 person hours was devoted to flora surveys and what proportion was devoted to fauna surveys. However, given the length of the circuit, the presence of high-quality conservation habitat through which the rally circuit will occur, and the diversity of habitats, it is my opinion that the survey timing and effort was insufficient to detect all populations of threatened plant species that occur within the study area.

Many threatened plant species, especially shrubs and herbaceous species (e.g. native orchids) are only readily detectable and identifiable when they are in flower or seeding. Few, if any, threatened plant species

would have been in flower or seeding at the time that surveys were conducted. Therefore, it is possible that important populations of some threatened plant species were not detected as a result of surveys being conducted at inappropriate times of the year. The true extent of impacts of a proposal as large as the Repco Rally on threatened plant species cannot be adequately assessed unless there is certainty that all or most populations of threatened plant species within the study area have been detected and mapped.

Seven nationally-threatened species were observed by Biolink to occur alongside the proposed Repco Rally circuit within the Tweed and Kyogle LGAs. They are the Rough-shelled Bush Nut (*Macadamia tetraphylla*), Red Boppel Nut (*Hicksbeachia pinnatifolia*), Durobby (*Syzygium moorei*), Red Lillypilly (*Syzygium hodgkinsoniae*), Davidson's Plum (*Davidsonia jerseyana*), Crystal Creek Walnut (*Endiandra floydii*), Spiny Gardenia (*Randia moorei*), SlendeR Knotweed (*Persicaria elatior*).

Biolink (2009a&b) conclude that the only potential impact of the Repco Rally on nationally-threatened plant species is physical damage to individual plants as a result of a rally car running off the road during the race. However, it is also possible that the mortality or the decline in the health of individual plants may result from clearing or degradation of important habitat during road works, the runoff of sediment and/or pollutants from the road, the settling of airborne soil and dust during the rally event, trampling by large numbers spectators on the sides of the road, and invasion of threatened plant habitats by weeds. It is my opinion that when these potential impacts on nationally-threatened plant are considered, it would be necessary to refer the proposal to the Commonwealth Minister for the Environment for approval.

## 6. OVERALL CONCLUSION

It is my professional opinion that Biolink has not adequately considered all the potential impacts of the Repco Rally on the status of nationally-threatened fauna and flora species. Consequently, it has seemingly reached the erroneous conclusion that there will be no potentially significant impacts of the Repco Rally on nationally-threatened species, and that there is no need to refer the proposal to the Commonwealth Environment Minister for approval. In my analysis of potential impacts, I have concluded that there is the potential of some impacts being significant and thus the proposal is in need of referral to the Commonwealth Minister for the Environment.

Biolink has also not assessed potential impacts of the Repco Rally on migratory species that are listed in the schedules of the EPBC Act, despite at least 34 listed terrestrial species occurring in the Tweed and Kyogle LGAs. Therefore, the proponent is required to conduct this assessment to determine if the proposal needs to be referred to the Commonwealth Minister for the Environment with respect to potential impacts on nationally-listed migratory species.

Biolink has also recommended some mitigation measures for reducing the impacts of the Repco Rally on the status of threatened and migratory species. There is no provision under the MS(MRC) Act to ensure that these measures are implemented. If the proposal is referred to the Commonwealth Minister for the Environment, and he approves it, then it is likely that the recommended mitigation measures would need to be implemented under the Minister's Conditions of Approval.



I trust that this information has been of some use to you. I can be contacted on (02) 9808 1236 or 0402 225 481 if any of these issues need to be clarified.

Yours sincerely,

A handwritten signature in black ink that reads 'Stephen Ambrose'. The signature is written in a cursive style with a long horizontal flourish at the end.

Dr Stephen Ambrose  
Director,  
AMBROSE ECOLOGICAL SERVICES PTY LTD

---

Postal Address: Ambrose Ecological Services Pty Ltd, PO Box 246, Ryde, NSW 1680  
Office Address: Suite 9, 64-66 Cressy Road, Ryde, NSW 2112.  
Tel: (02) 9808 1236. Fax: (02) 9807 6865. Email: [stephen@ambecol.com.au](mailto:stephen@ambecol.com.au)