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# The Institute of Foresters of Australia

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10 January 2017

The Editor  
The Victorian Naturalist  
PO Box 13  
Blackburn. 3130

Emailed to: [vicnat@fncv.org.au](mailto:vicnat@fncv.org.au)

**RE: GILLESPIE ET AL (2016) "THE BIOLOGY AND STATUS OF THE LARGE BROWN TREE FROG (*Litoria littlejohni*) IN VICTORIA" (*The Victorian Naturalist* Vol 133:128-138).**

Dear Editor

Scientists within the Institute of Foresters have examined the above paper and have found several parts that we believe show lack of objective scientific rigour and fairness, or are incorrect. In view of this, the scientific merit in the paper has been compromised. Accordingly we have prepared a short review of the paper (see attached pages).

We respectfully submit that you should arrange a review following peer-reviewed publication principles. In particular, this review should check that source references in the document support the key statements or arguments.

The Institute of Foresters of Australia, which represents approximately one thousand professional foresters and forest scientists, also requests that the attached review/ response be published in the next available issue of *The Victorian Naturalist*.

Sincerely

**Euan Ferguson**  
Chairperson  
Institute of Foresters of Australia, Victorian Division  
Melbourne



**Review of:**

**Gillespie, G.R., McNabb, E. and Gaborov, R. (2016) The biology and status of the Large Brown Tree Frog *Litoria littlejohni* in Victoria. *The Victorian Naturalist* Vol 133:128-138.**

Scientists who are members of the Institute of Foresters of Australia have reviewed the paper and have found several parts that show clear lack of scientific rigour, as follows:

- **Criticism of a paper.** pp. 129-130. Gillespie *et al* (2016) are critical of the Powell and Sedunary (2013) for not providing ‘information vital to the interpretation’ of their report. However the intent of this report was not to provide detailed species and location data, it was to describe the development of a threatened fauna management framework. If Gillespie *et al* (2016) wanted specific location data, they could have consulted the Victorian Biodiversity Atlas, to which all the detection data was supplied.
- **Criticism of consultant ecologists.** p.130. They cast doubts on the “rigour and reliability” of the consultants who carried out the survey work on behalf of *VicForests*, as reported in Powell and Sedunary (2013). To back this assertion up, they quote Clemann and Gillespie (2012) who decided that a report of a rare frog species by consultant scientists (Urlus and Marr 2011) was “highly doubtful”. This was even though those authors heavily qualified their finding, suggesting that the site “warrants further investigation for the [frog’s] potential presence”. This type of criticism of unnamed consultants is inappropriate. We strongly suggest that it is unworthy of publication in *The Victorian Naturalist*.
- **Threats to frog populations.** pp.133-135. Gillespie *et al* (2016) detail presumed threats to the frog which may have contributed to its apparent decline. They quote only North American references in support of their contention that logging has long-term detrimental effects on amphibian populations. They acknowledge that “assessing the impacts of forestry activities is difficult”, but then have no hesitation in listing forestry operations that they believe are “highly likely to adversely affect *L. littlejohni*”. These statements (**in bold**) are discussed as follows:

(a) **The species is dependent on forest habitat for its survival and does not thrive in highly disturbed environments.** This statement appears at odds with Table 1 (p. 131) that shows that 7 of the 9 observations were in highly altered sites, i.e. road culverts, a road puddle and roadside ditches.

(b) **Most historical localities of *L. littlejohni* are in timber production areas, and most of the known habitat has been logged or fragmented by forestry operations.** Most historical sites are in timber production areas, because, as stated (p.129) by Gillespie *et al* (2016), the surveys in the period 1982-1992 were specifically targeted at areas that were to be harvested. Areas reserved from harvesting, such as parks and streamside reserves, and forests unsuitable for logging, understandably have fewer records even though they, no doubt, contain large areas of suitable habitat. Accordingly, the statement that “most of the known habitat has now been logged or fragmented” must be seriously questioned.



**(c) Habitat disturbance by logging affects microclimate, and reduces shelter, food availability and breeding habitats.** This statement ignores a number of aspects of timber harvesting. Timber harvesting in East Gippsland normally leaves a number of standing trees for habitat and/or seed (Sebire and Fagg 2009). Even after slash burning, a considerable amount of branch material is left on the ground. In addition, apart from the access roads and tracks, logging machinery creates depressions that often fill with water to create suitable breeding places.

While parts of a logging coupe initially would be unsuitable frog habitat, retained understorey islands, and buffers around drainage lines and flowing creeks (DEPI 2014) would provide refuge. Following logging, regrowth of both the eucalypts and understorey species in the wet forest types is rapid, providing suitable habitat within a few years.

Despite most current *L. littlejohni* localities being lentic water bodies created by forest management activities, the authors dismiss the value of such artificial water bodies. The question arises, how did the frog breed before man accessed these forests? The authors are entitled to their opinions, but their lengthy discussion of the possible effects of timber harvesting is hardly warranted given that no causes and effects have been demonstrated.

**(d) Fuel reduction burning, coupe burns and bushfires adversely impact on frog populations.** The authors (p.134) state that “fuel reduction burning in Victoria is undertaken primarily to protect human life and private and commercial assets, rather than to maintain natural fire regimes, including those in protected areas”. This is not true. Department of Environment, Land, Water and Planning (DELWP, the Victorian government department responsible for undertaking field reduction burning in conjunction (on public land) with *Parks Victoria*, states (see DELWP 2016) that planned burns are undertaken for a number of different reasons which include natural fire regimes (ecological burns), as follows:

*To reduce the risk of bushfires for the community* - In areas that have a high risk of bush fire, planned burns reduce the build-up of fuel and can protect life and property.

*To reduce fuel loads in forests* - A different type of planned burn to reduce fuel loads in forests near areas where people live, work or undertake any kind of activity.

*To reduce the impact of severe bushfires* - A new way of burning called Landscape Mosaic Burning helps reduce the impact of severe bushfires and maintain the health of ecosystems.

*To maintain healthy native plant communities and habitat for native animals* - Some planned burns (ecological burns) maintain healthy native plant communities and habitat for native animals.

*To re-establish harvested forests* - Planned burns also help re-establish harvested forests.

Fuel reduction burning, however, is generally unsuitable for the wet forest types, including rainforests, that are the main habitat of *L. littlejohni*. We accept that most frog species have little defence against fire, but they must have survived periodic intense bushfires during past millennia. Coupe burning for regeneration (the last on the above list) is undertaken on less than 0.15% of the potential habitat annually, and thus is unlikely to be a cause of the major decline in frog detections in the last 20 years.



**Logging plans in East Gippsland.** p. 136 “the Victorian Government has persevered with plans to log most of the remaining stands of old growth and commercially viable wet and damp forests in East Gippsland (Montreal Process Implementation Group for Australia and National Forest Inventory Steering Committee 2013), the most likely refugia of *L. littlejohni*.”

This statement is not correct, as one of the key outcomes of the Regional Forest Agreements was the reservation of 60% of all old-growth forests. For wet forests the 2009 assessment showed 78% of mapped Old Growth in the Comprehensive, Adequate and Representative (CAR) Reserve system and for Damp Forests the figure was 63% (Department of Sustainability and Environment 2009). Some of the remainder is available for timber production and as described in Powell and Sedunary (2013) these are the areas targeted for specialist fauna surveys.

In addition, the supporting reference cited (Australia’s State of the Forests Report 2013) contains no mention of plans to harvest the remaining stands in question. It goes to lengths to explain the meeting of the 60% reservation targets. This is a serious case of a reference being incorrectly used in an attempt to convince the reader of the veracity of the statement.

**In conclusion**, we believe that, as this paper contains a number of debatable statements and errors of fact, it is our view that the entire paper requires expert review, including checking that references support the key statements or arguments. As it stands, the scientific merit in the paper has been compromised by lapses in scientific rigour.

#### References

Cleemann, N. and Gillespie, G. (2012) Response to ‘ A call record of the Southern Barred Frog *Mixophyes balbus* from East Gippsland by Urlus and Marr. *The Victorian Naturalist* 129:120-121.

DEPI (2014) Code of Practice for Timber Production 2014, Department of Environment and Primary Industries, Melbourne.

DELWP (2016) Victoria’s planned burning program. 1p. [http://www.depi.vic.gov.au/\\_data/assets/pdf\\_file/0010/299863/Victorias\\_planned\\_burning\\_program-fact-sheet-FINAL.pdf](http://www.depi.vic.gov.au/_data/assets/pdf_file/0010/299863/Victorias_planned_burning_program-fact-sheet-FINAL.pdf) accessed 29 December 2016

Department of Sustainability and Environment (2009) Final Report on Progress with Implementation of the Victorian Regional Forest Agreements (RFAs) An update to the December 2009 Draft Report on Progress including additional information as recommended by the Independent Reviewer - East Gippsland RFA, Central Highlands RFA, North East RFA, West Victoria RFA and Gippsland RFA [http://www.depi.vic.gov.au/\\_data/assets/pdf\\_file/0017/300095/Final-Report-on-Progress-with-Implementation-of-the-RFAs-2014-FINAL.pdf](http://www.depi.vic.gov.au/_data/assets/pdf_file/0017/300095/Final-Report-on-Progress-with-Implementation-of-the-RFAs-2014-FINAL.pdf) accessed 29 December 2016

Gillespie, G.R., McNabb, E. and Gaborov, R. (2016) The biology and status of the Large Brown Tree Frog *Litoria littlejohni* in Victoria. *The Victorian Naturalist* 133:128-138.

Montreal Process Implementation Group for Australia and National Forest Inventory Steering Committee (2013) Australia’s State of the Forests Report 2013, ABARES, Canberra.

Powell, C.J. and Sedunary D.N. (2013) Development of a threatened fauna management framework across Victoria’s state forests. *Australian Forestry* 76:10-15.



Sebire, I., and Fagg, P. (2009) High Elevation Mixed Species in Victoria's State Forests. *Silviculture Reference Manual No.2*, Department of Sustainability and Environment, Melbourne.

Urlus, J. and Marr, R. (2011) A call record of the Southern Barred Frog *Mixophyes balbus* from East Gippsland. *The Victorian Naturalist* 128:272-275.

A handwritten signature in black ink that reads 'Euan A. Ferguson'. The signature is written in a cursive, flowing style.

**Euan Ferguson**

Chairperson

Institute of Foresters of Australia, Victorian Division. Melbourne