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# Urgent Need to Use and Reform Critical Habitat Listing in Australian Legislation in Response to the Extensive 2019–2020 Bushfires

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*The unprecedented bushfires of 2019–2020 burnt significant areas of forest and woodland in eastern and southern Australia. The size of the area burnt, and intensity of the fire has meant the majority of habitat for a large number of threatened species has been impacted, placing high conservation value on the unburnt refuges remaining. Most Australian jurisdictions have provision for “critical habitat” listing under their threatened species legislation. However, these provisions have been under-utilised. Here, I review these provisions in the jurisdictions impacted by these fires. Considering the number of threatened species and the crucial role of critical habitat in their recovery, new processes will need to be implemented to rapidly assess and designate critical habitat under existing provisions and future reforms to legislation implemented in order to deal with future events such as these extensive bushfires.*

## INTRODUCTION

The bushfires of the spring-summer of 2019–2020 burnt an estimated 10 million ha in New South Wales, the Australian Capital Territory, Victoria, Tasmania, south-east Queensland, southern South Australia and south-west Western Australia. Not only is the scale of Australian forest and temperate woodland burnt in a single season unprecedented, the combination of the intensity of the fires and the very large individual fire scars has resulted in a significant loss of biodiversity and, in many places, forest and woodland structure. Estimates of the number of land mammals, birds and reptiles killed is conservatively estimated at one billion in New South Wales and Victoria,<sup>1</sup> and many times greater for all species.<sup>2</sup> Critically, the fires have had significant impacts on the habitat for a range of threatened species. Some 49 listed threatened species have more than 80% of their modelled likely or known distribution within the fire extent and a further 65 listed threatened species have more than 50%, but less than 80%, of their modelled likely or known distribution within the fire extent.<sup>3</sup>

The Commonwealth Government’s Wildlife and Threatened Species Bushfire Recovery Expert Panel identified “Protecting unburnt areas within or adjacent to recently burnt ground that provide refugia” as one of the top priority activities to prevent extinctions and maximise the changes of long-term recovery

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<sup>1</sup> C Dickman, “More than One Billion Animals Killed in Australian Bushfires” (University of Sydney, Sydney, 8 January 2020) <<https://sydney.edu.au/news-opinion/news/2020/01/08/australian-bushfires-more-than-one-billion-animals-impacted.html>>.

<sup>2</sup> M Lee, “Australia’s Bushfires Could Drive More than 700 Animal Species to Extinction. Check the Numbers for Yourself”, *The Conversation*, 14 January 2020 <<https://theconversation.com/australias-bushfires-could-drive-more-than-700-animal-species-to-extinction-check-the-numbers-for-yourself-129773>>.

<sup>3</sup> Australian Government Department of Agriculture, Water and the Environment, “Protected Species in Bushfire Affected Areas” (20 January 2020) <<http://www.environment.gov.au/biodiversity/bushfire-recovery/research-and-resources>>.



of native species and communities<sup>4</sup> and the importance of refugia has also been recognised by State government responses (eg Victoria<sup>5</sup> and New South Wales<sup>6</sup>).

Most government responses to the bushfires to date have focused on important management actions. Considering the importance of this refugia for the future survival for a range of threatened taxa and ecological communities in Queensland, New South Wales, the Australian Capital Territory, Victoria, South Australia and Western Australia, it is critical to look at the role and application of “critical habitat” and similar provisions within conservation legislation at State and Federal level. I briefly outline how critical habitat is considered in legislation in jurisdictions impacted by the 2019–2020 fires of eastern and southern Australia, and then discuss the opportunity to better utilise existing provisions following the immediate bushfire crisis and the need to make these provisions more relevant to emerging conservation challenges.

## CRITICAL HABITAT PROVISIONS IN LEGISLATION OF FIRE-AFFECTED JURISDICTIONS

### Federal

Under the *Environment Protection and Biodiversity Conservation Act 1999* (Cth), the Minister may list habitat identified by the Minister as being critical to the survival of a listed threatened species or listed threatened ecological community on a Register of Critical Habitat.<sup>7</sup> Considerations for listing are further defined in the *Environment Protection and Biodiversity Conservation Regulations 2000* (Cth), and includes use “in periods of stress”, including fire.<sup>8</sup> In considering whether to list habitat, the Minister must take into account the potential conservation benefit of listing the habitat<sup>9</sup> and the regulations must require the Minister to consider scientific advice (from the Threatened Species Scientific Committee) in identifying the habitat.<sup>10</sup> The Minister must, when making or adopting a recovery plan, consider whether to list habitat that is identified in the recovery plan as being critical to the survival of the species or ecological community for which the recovery plan is made or adopted.<sup>11</sup> Before listing habitat in the register, the Minister must be satisfied that reasonable steps have been taken to consult with the owner of the property where the habitat is located, if the habitat is not in a Commonwealth area.<sup>12</sup> While it is an

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<sup>4</sup> Wildlife and Threatened Species Bushfire Recovery Expert Panel, “Communiqué 15 January 2020” <<https://www.environment.gov.au/system/files/pages/effd94e2-00fc-4e4b-8692-941f90f5ad8c/files/communique-15jan2020.pdf>>.

<sup>5</sup> Department of Environment, Land, Water and Planning (DELWP), *Victoria’s Bushfire Emergency: Biodiversity Response and Recovery. Phase 1* (Department of Environment, Land, Water and Planning, Melbourne, 23 January 2020) <[https://www.wildlife.vic.gov.au/\\_data/assets/pdf\\_file/0034/449746/Victorias-bushfire-emergency-Biodiversity-response-and-recovery-Version-1-23-January-2020.pdf](https://www.wildlife.vic.gov.au/_data/assets/pdf_file/0034/449746/Victorias-bushfire-emergency-Biodiversity-response-and-recovery-Version-1-23-January-2020.pdf)>.

<sup>6</sup> Department of Planning, Industry and Environment (DPIE), *Wildlife and Conservation Bushfire Recovery Immediate Response January 2020* (Department of Planning, Industry and Environment, Sydney, 2020) <<https://www.environment.nsw.gov.au/-/media/OEH/Corporate-Site/Documents/Parks-reserves-and-protected-areas/Fire/wildlife-and-conservation-bushfire-recovery-immediate-response-january-2020-200027.pdf>>.

<sup>7</sup> *Environment Protection and Biodiversity Conservation Act 1999* (Cth) s 207A (1).

<sup>8</sup> *Environment Protection and Biodiversity Conservation Regulations 2000* (Cth) s 7.09 (1). Specifically, the Minister may take into account the following matters: (1) whether the habitat is used during periods of stress (Examples of period of stress: Flood, drought or fire); (2) whether the habitat is used to meet essential life cycle requirements (Examples: Foraging, breeding, nesting, roosting, social behaviour patterns or seed dispersal processes); (3) the extent to which the habitat is used by important populations; (4) whether the habitat is necessary to maintain genetic diversity and long-term evolutionary development; (5) whether the habitat is necessary for use as corridors to allow the species to move freely between sites used to meet essential life cycle requirements; (6) whether the habitat is necessary to ensure the long-term future of the species or ecological community through reintroduction or re-colonisation; (7) any other way in which habitat may be critical to the survival of a listed threatened species or a listed threatened ecological community.

<sup>9</sup> *Environment Protection and Biodiversity Conservation Act 1999* (Cth) s 207A (1A).

<sup>10</sup> *Environment Protection and Biodiversity Conservation Act 1999* (Cth) s 207A (2).

<sup>11</sup> *Environment Protection and Biodiversity Conservation Regulations 2000* (Cth) s 7.09(2).

<sup>12</sup> *Environment Protection and Biodiversity Conservation Regulations 2000* (Cth) s 7.09(3)(b).

offence to knowingly damage critical habitat, this only applies to habitat that is in or on a Commonwealth area.<sup>13</sup> Only five areas are listed on the Register of Critical Habitat,<sup>14</sup> and none since 2005.

## Victoria

Victoria's primary legislation for threatened species, the *Flora and Fauna Guarantee Act 1988* (Vic), has recently gone through a review process and will be amended when the *Flora and Fauna Guarantee Amendment Act 2019* (Vic) comes into effect on 1 June 2020. The Victorian Government has acknowledged it has not used the critical habitat mechanism in the current Act "...for a range of reasons, including concerns over the regulatory burden placed on landholders and the scientific challenges of identifying critical habitats and determining their boundaries."<sup>15</sup> Critical habitat has only been declared once (in 1996) and was subsequently revoked a year later, while Interim Conservation Orders have never been used.<sup>16</sup>

Under the amended Act "The Secretary may determine any area of Victoria to be a critical habitat if the area significantly contributes to a) the conservation in Victoria of a listed taxon or community of flora or fauna, b) a taxon or community of flora or fauna that is not listed but recommended by the Scientific Advisory Committee or c) the area supports ecological processes or ecological integrity that significantly contributes to the conservation of a taxon or community that is listed".<sup>17</sup> Further factors influencing determining of critical habitat are outlined, including "refugia during environmental stress".<sup>18</sup>

Before making a critical habitat determination, the Secretary must give written notice to the following: (1) the landholder of any land that is within the area of the proposed determination; (2) any public authority that performs a function or exercises a power in the area of the proposed determination; (3) any person whose interests, in the opinion of the Secretary, are likely to be adversely affected by the proposed determination,<sup>19</sup> although this does not apply if the Secretary considers that the written notice of a proposed determination is likely to result in damage being done to the habitat within the area that is subject to the determination.<sup>20</sup>

Interim Conservation Orders will become Habitat Conservation Orders under the amended Act. Habitat Conservation Orders prohibit or regulate activities or processes that take place within Critical Habitat, or, if it adversely affects that habitat, any activity that takes place outside that habitat.<sup>21</sup> A habitat conservation order remains in force for the period specified in the order which must not exceed 10 years after the order takes effect.<sup>22</sup> It is an offence to contravene a habitat protection order,<sup>23</sup> and compensation is payable to landowners for financial loss suffered as a consequence of the making of a habitat conservation, with the amount determined by the Secretary.<sup>24</sup>

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<sup>13</sup> *Environment Protection and Biodiversity Conservation Act 1999* (Cth) s 207B(1)(c).

<sup>14</sup> Register of Critical Habitat: <<https://www.environment.gov.au/cgi-bin/sprat/public/publicregisterofcriticalhabitat.pl>>.

<sup>15</sup> Department of Environment, Land, Water and Planning (DELWP), *Review of the Flora and Fauna Guarantee Act 1988 Consultation Paper* (Department of Environment, Land, Water and Planning, Melbourne, 2017).

<sup>16</sup> DELWP, n 15.

<sup>17</sup> *Flora and Fauna Guarantee Amendment Act 2019* (Vic) s 15, referring to amendments to s 20 of the Principal Act.

<sup>18</sup> *Flora and Fauna Guarantee Amendment Act 2019* (Vic) s 15, referring to amendments to s 20 of the Principal Act.

<sup>19</sup> *Flora and Fauna Guarantee Amendment Act 2019* (Vic) s 15, referring to amendments to s 20B of the Principal Act.

<sup>20</sup> *Flora and Fauna Guarantee Amendment Act 2019* (Vic) s 15, referring to amendments to s 20B of the Principal Act.

<sup>21</sup> *Flora and Fauna Guarantee Amendment Act 2019* (Vic) s 20, referring to amendments to s 27(1) of the Principal Act.

<sup>22</sup> *Flora and Fauna Guarantee Amendment Act 2019* (Vic) s 20, referring to amendments to s 27(1) of the Principal Act.

<sup>23</sup> *Flora and Fauna Guarantee Amendment Act 2019* (Vic) s 20, referring to amendments to s 32 of the Principal Act.

<sup>24</sup> *Flora and Fauna Guarantee Amendment Act 2019* (Vic) s 20, referring to amendments to s 39 of the Principal Act.

## New South Wales

Under the New South Wales *Biodiversity Conservation Act 2016* (NSW), the Minister may declare any area in New South Wales to be an area of outstanding biodiversity value<sup>25</sup> by publication of a notice of the declaration on the NSW legislation website.<sup>26</sup>

Areas of declared critical habitat under the *Threatened Species Conservation Act 1995* (NSW) have become the first Areas of Outstanding Biodiversity Value in New South Wales with the commencement of the *Biodiversity Conservation Act 2016* (NSW).<sup>27</sup> Only four Area of Outstanding Biodiversity Value declarations have been made (for Gould's Petrel, Little Penguin population in Sydney's North Harbour, Mitchell's Rainforest Snail in Stotts Island Nature Reserve, and for Wollemi Pine).<sup>28</sup>

An area may be declared as an area of outstanding biodiversity value if the Minister is of the opinion that (1) the area is important at a State, national or global scale, and (2) the area makes a significant contribution to the persistence of at least one of the following: (a) multiple species or at least one threatened species or ecological community, (b) irreplaceable biological distinctiveness, (c) ecological processes or ecological integrity, (d) outstanding ecological value for education or scientific research.<sup>29</sup> The declaration of an area may relate to, but is not limited to, protecting threatened species or ecological communities, connectivity, climate refuges and migratory species.<sup>30</sup>

Before an area is declared to be an area of outstanding biodiversity value, the Environment Agency Head must (1) recommend the declaration of the area, (2) notify landholders whose land is within the proposed area, and any public authorities that appear to the Agency Head to exercise functions in relation to land within the proposed area, of the recommendation to declare the area, (3) give those landholders and public authorities a reasonable opportunity to make submissions with respect to the recommendation to declare the area and (4) must seek and consider the advice of the Threatened Species Scientific Committee, the Biodiversity Conservation Trust and the Biodiversity Conservation Advisory Panel.<sup>31</sup>

The Environment Agency Head must notify any landholder or public agency whose land is within the proposed area after declaration and take reasonable steps to enter into a private land conservation agreement with the landholder.<sup>32</sup> A person who damages a declared area of outstanding biodiversity value is guilty of an offence.<sup>33</sup>

## Queensland

The Queensland *Nature Conservation Act 1992* (Qld) defines critical habitat as "habitat that is essential for the conservation of a viable population of protected wildlife or community of native wildlife, whether or not special management considerations and protection are required" and "may include an area of land that is considered essential for the conservation of protected wildlife, even though the area is not presently occupied by the wildlife". A management principle of protected wildlife under the Act is to identify the wildlife's critical habitat and conserve it to the greatest possible extent.<sup>34</sup> The chief executive must keep a register of critical habitats.<sup>35</sup>

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<sup>25</sup> *Biodiversity Conservation Act 2016* (NSW) s 3.1(1).

<sup>26</sup> *Biodiversity Conservation Act 2016* (NSW) s 3.1(2).

<sup>27</sup> NSW Government, "Area of Outstanding Biodiversity Value Register" <<https://www.environment.nsw.gov.au/topics/animals-and-plants/biodiversity/areas-of-outstanding-biodiversity-value/area-of-outstanding-biodiversity-value-register>>.

<sup>28</sup> NSW Government, n 27.

<sup>29</sup> *Biodiversity Conservation Act 2016* (NSW) s 3.2 (1).

<sup>30</sup> *Biodiversity Conservation Act 2016* (NSW) s 3.2 (2).

<sup>31</sup> *Biodiversity Conservation Act 2016* (NSW) s 3.3.

<sup>32</sup> *Biodiversity Conservation Act 2016* (NSW) s 3.4.

<sup>33</sup> *Biodiversity Conservation Act 2016* (NSW) s 2.3.

<sup>34</sup> *Nature Conservation Act 1992* (Qld) s 73(a)(iv).

<sup>35</sup> *Nature Conservation Act 1992* (Qld) s 133(1)(b).

The Minister may prepare a conservation plan for any native wildlife, class of wildlife, native wildlife habitat or area that is, in the Minister’s opinion, an area of major interest.<sup>36</sup> A conservation plan may make provision for the use or development of land, and activities, in an area identified under the conservation plan as, or including, a critical habitat or an area of major interest.<sup>37</sup>

If the Minister is of the opinion that a critical habitat is subject to a threatening process that is likely to have significant detrimental effect on the habitat, the Minister may make an interim conservation order for the conservation, protection or management of the habitat.<sup>38</sup> An interim conservation order cannot be in place for than 60 days, although the Governor in Council may, by gazette notice, extend the order by not more than 90 days.<sup>39</sup> If a critical habitat is the subject of an interim conservation order, regulation, conservation plan, the landholder of which these mechanisms are subject to is entitled to be paid by the State the reasonable compensation because of the restriction or prohibition.<sup>40</sup>

## Australian Capital Territory

The Australian Capital Territory’s *Nature Conservation Act 2014* (ACT) defines critical habitat as a “habitat that is critical to the survival of a species or ecological community”. In developing an action plan for threatened species or ecological community listed under the Act, critical habitat (if known) for species or communities is identified.<sup>41</sup> There is little further reference to critical habitat in the Act in anything other than an action plan, a document that may not be binding on decision makers.<sup>42</sup>

## South Australia

South Australia’s *National Parks and Wildlife Act 1972* (SA) does not have critical habitat provisions, but Sch 1 of the *Native Vegetation Act 1991* (SA) states that native vegetation should not be cleared if, in the opinion of the Native Vegetation Council (1) it comprises a high level of diversity of plant species; or (2) it has significance as a habitat for wildlife; or (3) it includes plants of a rare, vulnerable or endangered species; or (4) the vegetation comprises the whole, or a part, of a plant community that is rare, vulnerable or endangered; or (5) it is significant as a remnant of vegetation in an area which has been extensively cleared; or (6) it is growing in, or in association with, a wetland environment [among a range of other provisions].<sup>43</sup>

## Western Australia

Under the Western Australian *Biodiversity Conservation Act 2016* (WA),<sup>44</sup> habitat is eligible for listing as critical habitat if (1) it is critical to the survival of a threatened species or a threatened ecological community; and (2) its listing is otherwise in accordance with the ministerial guidelines.<sup>45</sup> The CEO

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<sup>36</sup> *Nature Conservation Act 1992* (Qld) s 120H(1).

<sup>37</sup> *Nature Conservation Act 1992* (Qld) s 120H(5).

<sup>38</sup> *Nature Conservation Act 1992* (Qld) s 102.

<sup>39</sup> *Nature Conservation Act 1992* (Qld) s 105.

<sup>40</sup> *Nature Conservation Act 1992* (Qld) s 108; *Nature Conservation Act 1992* (Qld) s 137A.

<sup>41</sup> *Nature Conservation Act 2014* (ACT) s 100.

<sup>42</sup> Australian Network of Environmental Defender’s Offices Inc (ANEDO), *An Assessment of the Adequacy of Threatened Species & Planning Laws in All Jurisdictions of Australia* (Report for Places You Love Alliance, ANEDO, Sydney, 2012) <[https://www.envirojustice.org.au/sites/default/files/files/Submissions%20and%20reports/ANEDO\\_adequacy\\_threatened\\_species\\_laws\\_report.pdf](https://www.envirojustice.org.au/sites/default/files/files/Submissions%20and%20reports/ANEDO_adequacy_threatened_species_laws_report.pdf)>.

<sup>43</sup> *Native Vegetation Act 1991* (SA) Sch 1, 1 – Principles of clearance of native vegetation.

<sup>44</sup> Which came into effect in its full form on 1 January 2019. The Act replaces the *Wildlife Conservation Act 1950* (WA) which did not have critical habitat provisions.

<sup>45</sup> *Biodiversity Conservation Act 2016* (WA) s 55; *Biodiversity Conservation Act 2016 Ministerial Guideline Number 5: Criteria and Procedures for Listing Critical Habitat* <<https://www.dpaw.wa.gov.au/images/documents/plants-animals/threatened-species/Listings/MG%20No%205%20Critical%20habitat%20listing%20process.pdf>>.

must take reasonable steps to give written notice of the proposed listing, amendment or repeal to the owner or occupier of the land on which the habitat is located.<sup>46</sup> A register of critical habitats must be established and maintained.<sup>47</sup>

The CEO may give a written “habitat conservation notice” to a person requiring the person to ensure that habitat damage, or further habitat damage, does not occur on land, if the CEO reasonably believes that – (1) habitat damage is likely to occur on the land; or (2) habitat damage is occurring or has occurred on the land.<sup>48</sup> A habitat conservation notice may require any person bound by it to take specified measures, within or for the duration of a specified period, for a range of purposes including (1) to repair any habitat damage that has occurred and (2) to re-establish and maintain critical habitat in any area affected by habitat damage to a condition as near as possible to the condition of the critical habitat before the habitat damage occurred.<sup>49</sup> The CEO must, by written notice given to the person, invite the person to make submissions on the determinations of the habitat conservation notice.<sup>50</sup>

The habitat conservation notice binds each successive owner or occupier of the land.<sup>51</sup> A person who is bound by a habitat conservation notice must not contravene the notice and penalties vary depending on threat status of the species or ecological communities involved.<sup>52</sup> The costs of taking measures on the land in compliance with a habitat conservation notice are to be borne in the proportions determined by the CEO.<sup>53</sup>

## Tasmania

The Tasmanian *Threatened Species Protection Act 1995* (Tas) provides for the declaration of “critical habitats” – areas of land defined on a map which the Director determines as habitat critical to the survival of a listed taxon of flora or fauna. This determination happens after consultation with the Scientific Advisory Committee (SAC)<sup>54</sup> and the Director must give public notification of the area determined as a critical habitat by reference to a map registered in the central plan office<sup>55</sup> showing the boundaries, extent and details of the area<sup>56</sup> and notify any landholder or other person who is likely to be affected by the determination.<sup>57</sup> The Director must, within 30 days publish notice of the determination in the Gazette,<sup>58</sup> unless the Minister is of the opinion that disclosure of the location of the habitat would result in any harm being done to it or to the flora or fauna which it supports<sup>59</sup> and cannot publish the determination of a critical habitat that is on private land unless the landholder agrees.<sup>60</sup>

The Minister may make an interim protection order to conserve the critical habitat of a listed taxon of flora or fauna or a nominated taxon of flora or fauna which has been accepted by SAC for listing and which in either case is on private land or Crown land and not subject to a public authority agreement.<sup>61</sup> In making

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<sup>46</sup> *Biodiversity Conservation Act 2016* (WA) s 56 (1).

<sup>47</sup> *Biodiversity Conservation Act 2016* (WA) s 57.

<sup>48</sup> *Biodiversity Conservation Act 2016* (WA) s 59 (1).

<sup>49</sup> *Biodiversity Conservation Act 2016* (WA) s 59 (4).

<sup>50</sup> *Biodiversity Conservation Act 2016* (WA) s 59 (5).

<sup>51</sup> *Biodiversity Conservation Act 2016* (WA) s 64.

<sup>52</sup> *Biodiversity Conservation Act 2016* (WA) s 65 (1).

<sup>53</sup> *Biodiversity Conservation Act 2016* (WA) s 67.

<sup>54</sup> *Threatened Species Protection Act 1995* (Tas) s 23 (1).

<sup>55</sup> Under the *Survey Co-ordination Act 1944* (Tas).

<sup>56</sup> *Threatened Species Protection Act 1995* (Tas) s 23(2)(a).

<sup>57</sup> *Threatened Species Protection Act 1995* (Tas) s 23(2)(b).

<sup>58</sup> *Threatened Species Protection Act 1995* (Tas) s 23(5).

<sup>59</sup> *Threatened Species Protection Act 1995* (Tas) s 23(6).

<sup>60</sup> *Threatened Species Protection Act 1995* (Tas) s 23(7).

<sup>61</sup> *Threatened Species Protection Act 1995* (Tas) s 32(1).

an interim protection order, the Minister must consider (1) matters relating to nature conservation; and (2) the social and economic consequences of making the order; and (3) if the order relates to private land, any comments made by Community Reference Committee (a committee made up of nine members appointed by the Minister consisting of people representing local government, farming, rural, forestry, fishing industries and the Scientific Advisory Committee); and (4) any other relevant matters.<sup>62</sup> An interim protection order ceases to be in force after (1) if the order relates to Crown land, a period of 65 business days; or (2) if the order relates to private land, a period of 30 business days,<sup>63</sup> but the Minister may, with the agreement of all persons affected by an interim protection order, extend the period during which the order is in force.<sup>64</sup> Terms and conditions as are specified in the order and may provide for protection and management of flora, fauna and the land within the habitat which is the subject of the order and the prohibition or regulation of any activity which takes place on the land or the use and management of the land within the habitat or activity which takes place outside the habitat which is the subject of the order but which is likely to affect the habitat adversely.<sup>65</sup> It is an offence not to comply with the order.<sup>66</sup> No critical habitats have been listed and no interim protection orders have been declared in Tasmania.<sup>67</sup>

## DISCUSSION

The importance of unburnt refuges, and their identification and management, has rightly featured prominently in the initial responses from government agencies to the ecological impacts of the 2019–2020 bushfires. Considering the importance of refuges in the immediate recovery processes and the threats these refuges may face from feral animals, weeds and potentially from a range of land management activities (including logging, clearing, grazing, inappropriate fire regimes and other human-influenced degrading processes), the application of critical habitat listing provides additional legal protection and management focus.

Most State and Federal threatened species legislation in Australian jurisdictions have provision for recognising critical habitat for threatened species. However, the process for how critical habitat is identified, recognised, applied and enforced varies between jurisdictions, and the mechanism has generally been considered to have been under-utilised for various reasons.<sup>68</sup>

For example, among a range of reasons for under-utilisation, the Australian Network of Environmental Defender's Offices Inc suggested "Reluctance to use the Critical Habitat Determination and Interim Conservation Order (ICO) provisions of the [Victorian *Flora and Fauna Guarantee Act 1988*] could be due in part to the requirement in the Act to pay compensation to landholders for financial loss suffered as a direct and reasonable consequence of the making of an ICO."<sup>69</sup> At the federal level, the Australian Conservation Foundation (ACF), a proponent for reforming the Critical Habitat listing process under the *Environment Protection and Biodiversity Conservation Act 1999* (Cth) (*EPBC Act*), outlined an example of where a lack of enforcement and prosecution powers under that Act for any land other than Commonwealth land may be influencing (and inhibiting) critical habitat listing.<sup>70</sup> It cites the case of

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<sup>62</sup> *Threatened Species Protection Act 1995* (Tas) s 32(3).

<sup>63</sup> *Threatened Species Protection Act 1995* (Tas) s 32(6).

<sup>64</sup> *Threatened Species Protection Act 1995* (Tas) s 32(8).

<sup>65</sup> *Threatened Species Protection Act 1995* (Tas) s 33.

<sup>66</sup> *Threatened Species Protection Act 1995* (Tas) s 36(3).

<sup>67</sup> ANEDO, n 42.

<sup>68</sup> ANEDO, n 42; Australian Conservation Foundation (ACF), *Australia's Extinction Crisis: Protecting Critical Habitat* (Australian Conservation Foundation, Melbourne, 2018) <[http://www.placesyoulove.org/wp-content/uploads/2018/05/190\\_ACF\\_2018\\_critical\\_habitat\\_report\\_AWscreen.pdf](http://www.placesyoulove.org/wp-content/uploads/2018/05/190_ACF_2018_critical_habitat_report_AWscreen.pdf)>; The Senate Environment and Communications References Committee, *Effectiveness of Threatened Species and Ecological Communities' Protection in Australia* (Commonwealth of Australia, Canberra, 2013); Environmental Justice Victoria, *Fixing Victoria's Broken Nature Laws: A Reform Proposal for the Flora and Fauna Guarantee Act* (Environmental Justice Australia, Melbourne, 2016).

<sup>69</sup> ANEDO, n 42.

<sup>70</sup> ACF, n 68.

the Critically Endangered Leadbeater's Possum (*Gymnobelideus leadbeateri*) where the Draft National Recovery Plan for the species stated that "...all current and prospective suitable habitat is critical for its survival, and necessary for its recovery".<sup>71</sup> This would mean that suitable montane ash forest in Victoria's Central Highlands, including areas available for timber harvesting, are critical for the survival of that species. ACF reported obtaining documents through Freedom of Information which "reveal, the TSSC [Threatened Species Scientific Committee] agreed at its September 2016 meeting to advise the Environment Minister that under Australia's current tenure constrained critical habitat laws, 'there would be no clear conservation benefit from pursuing a listing on the Register of Critical Habitat for this species'".<sup>72</sup> *The Guardian* reported a spokesperson for the Australian Government's Department of the Environment and Energy as stating the reason for this was because habitat for the Leadbeater's Possum was not found on Commonwealth land [quoting the departmental spokesperson]: "The range of the Leadbeater's Possum does not include Commonwealth land. The committee agreed that placing any of its habitat on the register would therefore have no conservation benefit".<sup>73</sup>

The under-utilisation of critical habitat provisions in Australian legislation is in contrast with the US *Endangered Species Act of 1973*, where critical habitat designations have been used more extensively.<sup>74</sup> There, reviews have found endangered species which had critical habitat listed were more likely to be stable or improving than species that had no critical habitat protection within two years of the listing. Beyond two years, species with critical habitat protections were twice as likely to be improving in terms of population size than those without protections.<sup>75</sup>

While there has been reluctance at times by agencies to designate Critical Habitat in the United States,<sup>76</sup> Owen found that "even if critical habitat does not substantially change the [US Fish and Wildlife] Services' regulatory approaches, regulated entities seem to believe that designations do increase regulatory stringency, and that belief may also deter some activities that might otherwise harm species". This is an important counter to reluctance to use critical habitat due to legal strength alone.<sup>77</sup> Mapping and publicly identifying critical habitat would likely add extra political and/or reputation pressure for public agencies or private landholders that might willingly damage this habitat, regardless of an inability to prosecute, particularly considering significant public concern for populations of threatened flora and fauna species as a result of 2019–2020 bushfires.<sup>78</sup>

Nonetheless, as the vast majority of nationally listed threatened species, and the habitat that is critical to their survival occur on land other than Commonwealth land, this is clearly a deficiency in the Federal *EPBC Act*. The second Independent Review of the *EPBC Act* is currently underway and is due to be completed later in 2020. The discussion paper produced for this review does not specifically mention

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<sup>71</sup> Department of the Environment, *National Recovery Plan for Leadbeater's Possum (Gymnobelideus leadbeateri) – Draft Only* (Commonwealth of Australia, Canberra, 2016) <<https://www.environment.gov.au/system/files/resources/6e2618ee-b799-4505-ac96-b3b3e0eb99c4/files/draft-national-recovery-plan-leadbeaters-possum.pdf>>.

<sup>72</sup> ACF, n 68, 11–12. That report cites "Draft Minutes, 65th Meeting of the Threatened Species Scientific Committee, 6–8 September 2016" as the document secured under Freedom of Information.

<sup>73</sup> L Cox, "Australia Has 1,800 Threatened Species but Has Not Listed Critical Habitat in 10 Years", *The Guardian*, 6 March 2018 <<https://www.theguardian.com/environment/2018/mar/06/australia-has-1800-threatened-species-but-has-not-listed-critical-habitat-in-10-years>>.

<sup>74</sup> J Salzman, "Evolution and Application of Critical Habitat under the Endangered Species Act" (1990) 14 *Harvard Environmental Law Review* 311. As of January 2015, critical habitat has been designated for 704 of the more than 1,500 US species listed as endangered or threatened species (see US Fish and Wildlife Service, Listing and Critical Habitat Frequently Asked Questions <<https://www.fws.gov/endangered/what-we-do/critical-habitats-faq.html>>).

<sup>75</sup> M Taylor, K Suckling and J Rachlinski, "The Effectiveness of the Endangered Species Act: A Quantitative Analysis" (2005) 55 *BioScience* 360.

<sup>76</sup> D Owen, "Critical Habitat And The Challenge Of Regulating Small Harms" (2012) 64 *Florida Law Review* 141.

<sup>77</sup> That is, examples in ACF, n 68; Cox, n 73.

<sup>78</sup> Ipsos, *Australians' Environmental Concerns in January 2020* (23 January 2020) <<https://www.ipsos.com/en-au/australians-environmental-concerns-january-2020>>.



critical habitat provisions, but it does invite proposals for reform of the Act.<sup>79</sup> Making critical habitat listing process more efficient and transparent, as well as having enforcement provisions across all land tenures, would be an obvious opportunity for reform, particularly for it to be flexible enough to be effectively deployed for emergency events such as 2019–2020 bushfires.

While State and Territory governments have a range of different mechanisms to protect biodiversity on public<sup>80</sup> and private land,<sup>81</sup> critical habitat listing has the ability to be “tenure-blind” and recognises the need to protect this important element of biodiversity regardless of where its located.

In reforming Victoria’s *Flora and Fauna Guarantee Act 1988* (Vic), there was wide support for “adopting a cooperative approach to managing critical habitat through agreements. Respondents to public consultation on that reform suggested an incentive framework was necessary to provide funding to support landowners significantly affected by a critical habitat determination.”<sup>82</sup> Compensation for landholders are part of critical habitat provisions in a number of jurisdictions and should be considered for others, but these should also be considered in a broader need for reform to Australian taxation legislation to better encourage private land conservation.<sup>83</sup> Critical habitat listing and associated interim conservation orders or equivalent (for jurisdictions that have them) may only need to be interim measures. Indeed, it may be that much unburnt refuges that might qualify as critical habitat post-bushfires only need to be listed as a temporary measure until (1) management efforts such as feral animal and weed control<sup>84</sup> provide important on-ground recovery outcomes, (2) the surrounding forest regenerates (and habitat within that recovering forest increases) and (3) as the status of threatened species becomes clearer/improves.

Predications for more frequent and extreme weather events, including catastrophic bushfires associated with climate change,<sup>85</sup> are likely to result in more events that result in temporary or permanent loss of habitat for threatened species. This means there will be an increasing need to apply, and where necessary reform, critical habitat listing so that the aims of these provisions can be quickly enacted when needed most. Processes for identifying and listing critical habitat under legislation in various jurisdictions typically involve an assessment and recommendations of a scientific advisory committee or equivalent. If critical habitat listing is to be useful in urgent situations, such as the response to the 2019–2020 bushfires, this will require rapid mobilisation of these committees to assess likely critical habitat. Providing extra resources to the national Threatened Species Scientific Committee and equivalent State scientific committees to expedite the identification of critical habitat will be essential. Ideally, there would be co-ordination between committees in different jurisdictions, particularly considering the number of threatened species whose distribution cross jurisdictional boundaries, and deliberations would use consistent and/or best available data.

It is recognised that rapidly assessing critical habitat for a vast range of species over a large area is a considerable task. Considering the importance of unburnt refuges, applying the precautionary principle may mean that many or most unburnt areas within or adjoining fire scares would qualify as critical habitat without full surveys of these refuges to determine species occupancy or immediate suitability. A more structured approach to critical habitat listing, particularly following situations as experienced in

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<sup>79</sup> G Samuel, *Independent Review of the EPBC Act – Discussion Paper* (Commonwealth of Australia, Canberra, 2019).

<sup>80</sup> For example, B Coffey, JA Fitzsimons and R Gormly “Strategic Public Land Use Assessment and Planning in Victoria, Australia: Four Decades of Trailblazing But Where to From Here?” (2011) 28 *Land Use Policy* 306.

<sup>81</sup> For example JA Fitzsimons, “Private Protected Areas? Assessing the Suitability for Incorporating Conservation Agreements over Private Land into the National Reserve System: A Case Study of Victoria” (2006) 23 *EPLJ* 365; JA Fitzsimons, “Private Protected Areas in Australia: Current Status and Future Directions” (2015) 10 *Nature Conservation* 1.

<sup>82</sup> Department of Environment, Land, Water and Planning, *Review of the Flora and Fauna Guarantee Act 1988 Consultation, submission and response summary* (Department of Environment, Land, Water and Planning, Melbourne, 2017).

<sup>83</sup> F Smith et al, “Reforms Required to the Australian Tax System to Improve Biodiversity Conservation on Private Land” (2016) 33 *EPLJ* 443.

<sup>84</sup> DELWP, n 5; DPIE, n 6.

<sup>85</sup> R Garnaut, *The Garnaut Review 2011: Australia in the Global Response to Climate Change* (CUP, 2011).

these bushfires (large amounts of habitat burnt for a large number of threatened species and the need for quick action, with at times limited data)<sup>86</sup> would bring increased certainty to species recovery efforts, to industry and to private landholders alike, and ensure recovery efforts are best spent where needed.

In the absence of clear process and direction, interim protection may occur in less planned processes, such as through the courts or political process. This is already playing out – the Australian Broadcasting Corporation reported in late January 2020 that the Supreme Court of Victoria:<sup>87</sup>

[G]ranted an interim injunction ... preventing logging in three coupes – areas to be harvested in the forests — ahead of a full hearing [in February 2020]. Justice Kate McMillan said there was “a real threat of a serious or irreversible damage to threatened species and their habitat should harvesting operations continue in the coupes”. “The recent bushfires have caused extensive environmental damage, the severity of which is only beginning to be understood,” Justice McMillan said.

Similar concerns on plans for timber extraction in potentially important Koala habitats in New South Wales post-bushfires have been raised by the chair of NSW Upper House inquiry into koala populations and habitat.<sup>88</sup>

Society, through inclusion of provisions for critical habitat designations in threatened species legislation in most Australian jurisdictions, value critical habitat and expect it to be protected. The bushfires of 2019–2020 has made the concept of critical habitat and the need to legally designate it using existing provisions more important than ever. However, the extensive nature of these bushfires and deficiencies in scope and process of critical habitat listing provisions in some jurisdictions highlight the need for reform of these provisions to ensure they are fit-for-purpose and able to respond effectively to future catastrophic events.

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<sup>86</sup> Acknowledging in such cases the tradeoffs between timeliness and the full consideration of critical habitat needs for a threatened species; see also AE Camaclang et al, “Current Practices in The Identification of Critical Habitat for Threatened Species” (2015) 29 *Conservation Biology* 482.

<sup>87</sup> R Willingham, “Supreme Court Halts Logging in Parts of Victoria due to Impact of Bushfires on Threatened Species”, *ABC News*, 30 January 2020 <<http://www.abc.net.au/news/2020-01-30/court-halts-logging-due-to-impact-of-gippsland-bushfires/11913528>>.

<sup>88</sup> G Borschmann, “NSW Premier Gladys Berejiklian Urged to Call for Logging Moratorium to Save Koalas in Leaked Letter”, *ABC News*, 4 February 2020 <<https://www.abc.net.au/news/2020-02-04/leaked-letter-to-nsw-premier-calls-for-halt-on-logging-for-koala/11925108>>.