

C O M M E N T

# A Wider View of the Impacts of Critical Habitat Designation

## A Comment on *Critical Habitat and the Challenge of Regulating Small Harms*

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The designation of critical habitat under the Endangered Species Act (ESA) can result in significant and costly consequences for landowners, industry, government, and other entities—often with little if any evidence of a commensurate benefit to the species involved. In *Critical Habitat and the Challenge of Regulating Small Harms*, Professor Dave Owen provides a valuable contribution to assessing the role of critical habitat during consultation on federal agency actions under ESA section 7.<sup>1</sup> Specifically, in reviewing and analyzing over 4,000 biological opinions, Professor Owen devotes substantial time and resources to developing a better understanding of critical habitat in formal consultation between agencies undertaking federal actions, such as issuing permits or rules or providing project funding, and the U.S. Fish and Wildlife Service (FWS) and the National Marine Fisheries Service (NMFS) (together, the Services). Although his analysis is limited to information contained in the Services' biological opinions, Professor Owen provides valuable, hard data showing the on-the-ground impacts of critical habitat on the consultation process, which is useful for understanding and weighing policy choices associated with critical habitat designation. Finding that the Services construe the ESA prohibition against adverse modification of critical habitat to exclude "minor alterations" of habitat, Professor Owen concludes that the ESA's prohibition of "adverse modification" of critical habitat thus has little effect upon the consultation process.

In order to understand the full impacts and costs of critical habitat designation, however, it is necessary to view critical habitat from a wider perspective that considers the effect of critical habitat designation outside of the formal ESA section 7 consultation process. This broader perspective is especially important in light of the Services' recent

efforts to undertake an unprecedented number of ESA listing actions that are likely to involve decisions on critical habitat designation, and in light of related regulatory and policy decisions that the Services are facing on topics such as "adverse modification,"<sup>2</sup> "significant portion of range,"<sup>3</sup> and voluntary landowner conservation initiatives.<sup>4</sup>

### I. Biological Opinions Provide Only a Partial Picture of the Impact of Critical Habitat

Professor Owen's review of 4,000 biological opinions presents a valuable but partial picture of the effects of critical habitat designation. Efforts are undertaken by landowners, project proponents, government agencies, and others to ensure compliance with critical habitat provisions both prior to and after consultation. Indeed, while potentially time-consuming and expensive, such actions are often undertaken in order to avoid the even greater costs and burdens of formal consultation.

Section 7 of the ESA requires a federal agency to ensure, through consultation with FWS or NMFS as appropriate, that a proposed action "is not likely to jeopardize the con-

1. Dave Owen, *Critical Habitat and the Challenge of Regulating Small Harms*, 64 FLA. L. REV. 141 (2012).

2. See Memorandum from Marshall Jones, Acting Director, FWS, to Regional Directors, Application of the "Destruction or Adverse Modification" Standard Under Section 7(a)(2) of the ESA (Dec. 9, 2004), available at <http://www.fws.gov/midwest/endangered/permits/hcp/pdf/AdverseModGuidance.pdf> (because of recent litigation finding the Service's regulatory definition of "destruction or adverse modification" was contrary to law, FWS provided guidance for applying the adverse modification standard in section 7 consultations pending adoption of a new regulatory definition).  
3. See 76 Fed. Reg. 76987 (Dec. 9, 2011) (draft policy of interpretation of "significant portion of its range" in the ESA's definitions of "endangered species" and "threatened species"). The Services have not yet issued their final policy.  
4. See 77 Fed. Reg. 15352 (Mar. 15, 2012) (FWS is considering proposals for amendments to ESA's implementing regulation that would create incentives for landowners to take voluntary conservation actions to benefits species that may be likely to become threatened or endangered species).

tinued existence of any endangered or threatened species or result in the destruction or adverse modification of critical habitat of such species.”<sup>5</sup> However, where an action agency (such as the U.S. Army Corps of Engineers) determines that its action (such as the issuance of a Clean Water Act section 404 permit) will have “no effect” on listed species or critical habitat,<sup>6</sup> or where the action agency determines and the Service concurs that the proposed action is “not likely to adversely affect” listed species or designated critical habitat,<sup>7</sup> formal consultation is not required, and a biological opinion typically will not be prepared by the Service. Indeed, to avoid the difficulties and expense of formal consultation under section 7, many action agencies and private entities will undertake significant efforts to either avoid siting projects in designated critical habitat areas, or to avoid any impact at all to the primary constituent elements of critical habitat, thereby avoiding a “may affect” determination that would trigger formal consultation over impacts to the critical habitat and the potential for an adverse modification finding. As Professor Owen notes, landowners and action agencies are generally well acquainted with the lines on a map that depict designated critical habitat,<sup>8</sup> and the mere existence of designated critical habitat will often deter activities that might otherwise affect protected species. For example, when a real estate development company that planned to develop portions of a 2,400-acre property north of Sacramento, California, learned that much of the property was critical habitat for threatened vernal pool fairy shrimp and endangered vernal pool tadpole shrimp, it gave up plans to develop the property and decided instead to (in coordination with the Service) establish a conservation bank on the property.<sup>9</sup> This type of avoidance of potential impacts due to critical habitat designation will often avoid the need for consultation and thus would not be evident from an examination of biological opinions.

In addition to efforts taken to avoid potential impacts to critical habitat and thereby avoid formal consultation, it is also important to consider measures taken after the conclusion of formal consultation to implement reasonable and prudent alternatives (RPAs),<sup>10</sup> reasonable and prudent

measures (RPMs),<sup>11</sup> and other mitigation that have the effect of avoiding or mitigating impacts to critical habitat, even without a determination of adverse modification of critical habitat. For example, in its recent consultation with EPA regarding the Pesticide General Permit, NMFS provided a multi-pronged RPA that included measures such as a prohibition on the application of pesticide products within specified buffers of salmonid habitats.<sup>12</sup> EPA agreed to implement these measures identified by NMFS, with some modifications, to avoid both jeopardy and adverse modification of critical habitat.<sup>13</sup> In addition, Habitat Conservation Plans (HCPs), which must accompany applications for incidental take permits, include steps the applicant will take to minimize and mitigate impacts to species and their critical habitat.<sup>14</sup> The Wisconsin Department of Natural Resources, for example, holds an incidental take permit for the Karner blue butterfly and operates under an HCP that has 38 partners, including forestry and utility companies, that commit to minimization and mitigation of critical habitat impacts by taking measures such as avoiding disturbance of the butterflies’ host plant, lupine.<sup>15</sup> Moreover, designated critical habitat is included in Recovery Plans developed by the Services, which outline proactive measures to achieve species’ recovery and also provide a framework for implementation of other provisions of the ESA, such as section 7 consultations on Federal agency activities. As these examples demonstrate, the designation of critical habitat has a practical impact on a wide range of activities that may never be the subject of an adverse modification analysis in a biological opinion.

Professor Owen acknowledges that agencies still provide “substantial habitat protection through other means.”<sup>16</sup> Yet, as Professor Owen points out, the agencies have not developed a method for monitoring the results of voluntary or required minimization and mitigation efforts.<sup>17</sup> Thus, it is difficult to assess how, if at all, any of the problems Professor Owen has described with respect to protection of critical habitat translate into actual effects on species recovery. Professor Owen’s analysis of biological opinions provides a valuable look at one aspect of the role of critical

5. 16 U.S.C. §1536(a)(2).

6. *See, e.g.*, *Ctr. for Biological Diversity v. Dept. of Interior*, 563 F.3d 466, 475 (D.C. Cir. 2009); *Pacific Rivers Council v. Thomas*, 30 F.3d 1050, 1054 n.8 (9th Cir. 1996).

7. 50 C.F.R. §402.12.

8. Owen, *supra* note 1, at 180.

9. *See U.S. FISH & WILDLIFE SERV., TOOLS FOR HELPING IMPERILED WILDLIFE ON PRIVATE LANDS 10* (Dec. 2005), *available at* [www.fws.gov/endangered/esa-library/pdf/ImperiledWildlifeFinalDec2005.pdf](http://www.fws.gov/endangered/esa-library/pdf/ImperiledWildlifeFinalDec2005.pdf). From the information available to the authors, it is not clear that the use of the land as a conservation bank was as profitable for the landowners as the previously planned development would have been.

10. Where a biological opinion concludes that a proposed agency action will jeopardize listed species *or* modify designated critical habitat, the Services can propose RPAs that will avoid jeopardy to listed species or adverse modification of critical habitat. 16 U.S.C. §1536(b)(3)(A).

11. In biological opinions that contain an incidental take statement, it will also include mandatory RPMs that the Services consider necessary or appropriate to minimize the impact of the taking. 50 C.F.R. §402.02.

12. National Marine Fisheries Service, Biological Opinion on the Effects of the Proposed Registration of Pesticide Products Containing Carbaryl, Carbofuran, and Methomyl (Apr. 2009), *available at* <http://www.nmfs.noaa.gov/pr/pdfs/carbamate.pdf>.

13. Letter from Richard P. Keigwin, Director, USEPA Pesticide Re-evaluation Division, to James H. Lecky, Director, NMFS Office of Protected Resources (May 14, 2010), *available at* [http://www.nmfs.noaa.gov/pr/pdfs/consultations/epa\\_response\\_biop2.pdf](http://www.nmfs.noaa.gov/pr/pdfs/consultations/epa_response_biop2.pdf).

14. 16 U.S.C. §1539(a)(2). An HCP is a plan that outlines ways of maintaining, enhancing, and protecting a given habitat type needed to protect species.

15. *See TOOLS FOR HELPING IMPERILED WILDLIFE*, *supra* note 9, at 8.

16. Owen, *supra* note 1, at 141.

17. *Id.* at 184-85.

habitat. To take his analysis one step further and develop a more complete understanding of the practical effects of critical habitat designations, it would be useful to examine wider practical impacts by, for example: (1) comparing the recovery trends of species before and after designation of critical habitat and those with and without designated critical habitat; (2) surveying action agencies for a description of activities undertaken by permit applicants to avoid formal consultation over impacts critical habitat; or (3) conducting an economic analysis of the full practical and legal impacts of critical habitat designation to assess whether—for the same or less money—more effective species conservation efforts could be achieved through voluntary rather than coercive means.<sup>18</sup>

## II. Assertions as to the Limited Influence of Critical Habitat on Formal Consultation Stand in Stark Contrast to the High Costs It Imposes on Land Use and Ownership

Professor Owen's premise that critical habitat designation has only a weak influence on formal ESA section 7 consultation underscores the likelihood that the cost of critical habitat designation will be disproportionate to its limited benefits for species conservation and recovery. From both policy and rulemaking standpoints, the economic and regulatory burdens imposed by critical habitat designation are important considerations. Congress established two discrete provisions for the Services to consider economic impacts during rulemaking to designate critical habitat. First, ESA section 4(b)(2) provides that the "Secretary shall designate critical habitat" only "after taking into consideration the economic impact" of such designation.<sup>19</sup> The Service's mandatory consideration of economic impacts informs its statutory determination whether designation

is "prudent."<sup>20</sup> Second, ESA section 4(b)(2) authorizes the Service to "exclude any area from critical habitat if [the Secretary] determines that the benefits of such exclusion outweigh the benefits of specifying such area as part of the critical habitat, unless he determines, based on the best scientific and commercial data available, that the failure to designate such area as critical habitat will result in the extinction of the species concerned."<sup>21</sup>

Considerable regulatory burdens and corresponding economic costs are borne by landowners, companies, state and local governments, and other entities as a result of critical habitat designation.<sup>22</sup> These burdens begin *before* critical habitat is designated. Once the Service proposes a rule to designate critical habitat, landowners and others with an interest in the lands identified for critical habitat designation must participate in the rulemaking by presenting information to the Service during the rulemaking process if they want to ensure that the Service considers impacts to those interests and other relevant information.<sup>23</sup> In addition, the mere proposal of critical habitat triggers ESA conference requirements for any federal agency action (such as a U.S. Army Corps of Engineers permit for a stream crossing on private land) if that action is deemed "likely to . . . result in the destruction or adverse modification of [the] proposed critical habitat."<sup>24</sup> Once critical habitat is designated, persons who own or otherwise have lease, permit, or other interests in the designated land face immediate and significant restrictions on their otherwise lawful uses of that land; expensive and time-consuming new procedural requirements on ongoing and future projects; litigation risk; and significant diminution in the value of the property.

The ESA prohibits any federal "agency action" (*e.g.*, an activity authorized by a federal permit) that results in the "destruction" or "adverse modification" of critical habitat.<sup>25</sup> Projects undertaken on or near designated lands which require federal authorization, or which receive fed-

18. Indeed, FWS has recently been undertaking more efforts to work cooperatively with the public and increase incentives for voluntary efforts by private landowners and other land stewards to conserve species. See *Improving ESA Implementation: Landowner Incentives*, U.S. FISH & WILDLIFE SERV., [www.fws.gov/endangered/improving\\_ESA/landowner\\_incentives.html](http://www.fws.gov/endangered/improving_ESA/landowner_incentives.html). Many private landowners have welcomed the Service's increased focus on voluntary measures. According to Bob Stallman, American Farm Bureau Federation President, the "Farm Bureau believes the goals of the Endangered Species Act can best be accomplished when farm and ranch families and other private landowners work with government agencies through voluntary incentives to promote listed species on private lands. This approach has a proven track record of success in the areas where it has been used, and we are pleased the Interior Department is recognizing the positive role farmers and ranchers can play in species conservation." See *What They're Saying About Expanding Incentives for Voluntary Conservation Actions Under the Endangered Species Act*, U.S. FISH & WILDLIFE SERV., [www.fws.gov/endangered/improving\\_ESA/What\\_they're\\_saying.pdf](http://www.fws.gov/endangered/improving_ESA/What_they're_saying.pdf). It was just the type of voluntary landowner initiative in Florida that led to broad stakeholder support by government agencies and wildlife organizations which helped demonstrate, in a case worked on by the authors, that critical habitat is not needed for the Florida panther. See *Conservancy of SW Florida v. U.S. Fish and Wildlife Serv.*, 677 F.3d 1073, 1083-84 (11th Cir. 2012); see FLORIDA PANTHER PROTECTION PROGRAM, <http://www.floridapantherprotection.com/> (last viewed June 30, 2013).

19. 16 U.S.C. §1533(b)(2).

20. 16 U.S.C. §1533(a)(3)(A) (indicating that the Secretary shall designate and may revise critical habitat "to the maximum extent prudent and determinable").

21. 16 U.S.C. §1533(b)(2).

22. The public also faces indirect costs of critical habitat designation not addressed here, such as the costs to taxpayers of funding efforts by the Service to designate, defend, and implement critical habitat.

23. Under 50 C.F.R. Part 424, members of the public who face negative consequences as a result of critical habitat designation may provide information on "any significant activities that would . . . likely . . . be affected by the designation" and the "probable economic and other impacts of the designation upon proposed or ongoing activities," and may address whether the Service should "exclude any portion of such an area from the critical habitat if the benefits of such exclusion outweigh the benefits of specifying the area as part of the critical habitat." *Id.* at §424.19.

24. 50 C.F.R. §402.10(a). Because the term is undefined and often urged to have few if any limits, simply determining what "adverse modification" means in the context of a particular project can be daunting and time consuming (and thus very costly). And the procedures involved in a conference can be extensive and uncertain. During a conference, the Service must advise the action agency and applicant of any recommended "ways to minimize or avoid adverse effects," and the Service must subsequently issue a report of conclusions and recommendations reached during the conference, the "style and magnitude of [which] will vary with the complexity of the conference." *Id.* §402.10(c), (e).

25. 16 U.S.C. §1536(a)(2).

eral funding or otherwise have a federal nexus, are subject to critical habitat prohibitions and requirements. The ESA requires federal agencies to engage in section 7 consultation for any action that “may” affect critical habitat.<sup>26</sup> Section 7 consultation often takes months or years, significantly delaying projects and resulting in substantial additional project costs, if not destroying the projects’ economic viability. Furthermore, because the definition of “adverse modification” has been the subject of much litigation and is uncertain, members of the public cannot determine with confidence what activities would actually constitute “adverse modification.”<sup>27</sup> Indeed, the premise for Professor Owen’s conclusion that the Services depart from statutory consultation requirements rests largely on his view that small impacts to critical habitat violate the adverse modification standard.<sup>28</sup> Professor Owen suggests, in fact, that “federal actions authorizing, permitting or directly causing increases in greenhouse gas emissions” adversely affect polar bear critical habitat.<sup>29</sup> Finally, designation imposes significant additional litigation risks over application of critical habitat prohibitions and requirements, and can be expected to cause a substantial decline in the value of the land.<sup>30</sup>

The expanse of a critical habitat designation for a species can be extensive and can overlap with critical habitat for other species, often covering thousands or millions of acres of land. For example, USFWS recently revised its designated critical habitat for the marbled murrelet and, even with the Service’s removal of certain areas from the designation, the designation covers 3,698,100 acres of land in Washington, Oregon, and northern California.<sup>31</sup> Despite data and views well presented by Professor Owen which suggest that critical habitat designation has little effect on regulatory outcomes,<sup>32</sup> critical habitat designation imposes significant costs on land use and ownership. The combination of this limited effect on the consultation process for which critical habitat designation is designed, and the high cost of critical habitat borne by the regulated public, can draw into question whether a critical habitat designation meets the “prudent” standard established by Congress.<sup>33</sup>

### III. Conclusion

Professor Owen’s analysis demonstrates that the benefits of critical habitat designation can be questionable in the context of its intended role in ESA section 7 consultation. In contrast, the costs and burdens of critical habitat designation are tangible and substantial. Policy makers and regulators should undertake a broad consideration of the full range of practical and legal impacts of critical habitat designation when considering individual critical habitat designations and broader regulatory changes.

26. 16 U.S.C. §1536(a)(2); 50 C.F.R. §402.14(a).

27. See *Gifford Pinchot Task Force v. U.S. Fish & Wildlife Serv.*, 378 F.3d 1059, 1069-71 (9th Cir. 2004) (citing *N.M. Cattle Growers Ass’n v. U.S. Fish & Wildlife Serv.*, 248 F.3d 1277 (10th Cir. 2001); *Sierra Club v. U.S. Fish & Wildlife Serv.*, 245 F.3d 434 (5th Cir. 2001)). Wildlife and other organizations have urged the FWS to define “adverse modification” to include any action resulting in habitat of “perceptibly . . . less value,” which could be read to mean any change whatsoever resulting from any of the routine land management activities undertaken by landowners. See Letter from the Center for Biological Diversity, to Secretary of Interior Ken Salazar and Secretary of Commerce Gary Locke (Mar. 10, 2010), available at [http://www.biologicaldiversity.org/programs/biodiversity/endangered\\_species\\_act/protecting\\_critical\\_habitat/pdfs/Adverse\\_Mod\\_sign-on\\_letter.pdf](http://www.biologicaldiversity.org/programs/biodiversity/endangered_species_act/protecting_critical_habitat/pdfs/Adverse_Mod_sign-on_letter.pdf).

28. See Owen, *supra* note 1, at 147 (“The statute’s plain language . . . precludes federal agency actions from causing negative changes to critical habitat, even if the change is small”). The notion that any small negative impact constitutes adverse modification is not stated in the plain language of the ESA, nor may the ESA be interpreted to reach the extreme result that any negative impact to critical habitat, however inconsequential to the species, constitutes an adverse modification that is prohibited unless exempted by the Endangered Species Committee. 16 U.S.C. §1536(a)(2). Moreover, this notion is inconsistent with the case law. See, e.g., *Butte Environmental Council v. U.S. Army Corps of Eng’rs*, 620 F.3d 936 (9th Cir. 2010) (noting that “adverse modification” occurs only when an alteration “appreciably diminishes the value of critical habitat,” court upheld FWS determination of no adverse modification despite fact that project would destroy over 230 acres of critical habitat in light of the relatively small percentage of critical habitat affected) (citing 50 C.F.R. §402.02; *Gifford Pinchot Task Force v. U.S. Fish & Wildlife Serv.*, 378 F.3d 1059, 1070 (9th Cir. 2004)).

29. See Owen, *supra* note 1, at 145. According to prior agency analyses for the polar bear, the available science does not support Professor Owen’s suggestion with respect to greenhouse gas emissions. See U.S. Fish & Wildlife Service, Draft Environmental Assessment for Proposed Endangered Species Act 4(d) Regulations for Threatened Polar Bears 56 (Apr. 16, 2012), available at <http://alaska.fws.gov/fisheries/mmm/polarbear/pdf/Draft%20EA%20for%20the%20Polar%20Bear%20Special%20Rule%20April%2013%202012.pdf> (noting that greenhouse gas emissions “from a given facility cannot be linked” to effects on polar bear critical habitat, and “point sources of greenhouse gases should not be subject to prohibitions under the ESA and its implementing regulations given the current state of the science”); see also 78 Fed. Reg. 11766, 11785 (Feb. 20, 2013).

30. See M. Auffhammer et al., *Economic Impacts of Critical Habitat Designation: Evidence From the Market for Vacant Land*, J.L. & ECON. (2009) (to be revised and resubmitted), available at [www.webmeets.com/files/papers/AERE/2011/564/AOS.pdf](http://www.webmeets.com/files/papers/AERE/2011/564/AOS.pdf).

31. Endangered and Threatened Wildlife and Plants; Revised Critical Habitat for the Marbled Murrelet, 76 Fed. Reg. 61599 (Oct. 5, 2011).

32. Owen, *supra* note 1, at 166.

33. 16 U.S.C. §1533(a)(3)(A).