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Public Comments Processing
Attn: FWS-HQ-ES-2020-0047
U. S. Fish and Wildlife Service
MS: PRB/3W
5275 Leesburg Pike
Falls Church, VA 22041-3803

Subject: Comments on the Regulations for Listing Endangered and Threatened Species and Designating Critical Habitat – Definition of “Habitat” (FWS-HQ-ES-2020-0047)

We do not support the U.S. Fish and Wildlife Service’s (Service’s) definition of ‘*habitat*’ for use in designating Critical Habitat under the federal Endangered Species Act (ESA). We believe that the proposed definition is not fully and consistently defined, is not consistent with the intent and requirements of the ESA, and would inhibit recovery of listed species. Although the Alternative Definition of ‘*habitat*’ is an improvement over the Proposed Definition, it still lacks proper consideration of the dynamic nature of habitats and, thus, would not be successful in recovering many species that depend on dynamic ecosystems. We recommend the Service adopt an alternate definition as proposed by Rylander et al. (2020)¹ that considers and incorporates the dynamic nature of ecosystem change into the definition of ‘*habitat*,’ and recommend that the Service adopt this definition:

*Habitat is the area or type of site where a species naturally occurs or that it depends on directly or indirectly to carry out its life processes, or where a species formerly occurred or has the potential to occur and carry out its life processes in the foreseeable future.*¹

The San Francisco Bay Area Chapter of The Wildlife Society is an organization of over 200 professional biologists from nine counties in the SF Bay Area of California. The Wildlife Society (TWS; <https://wildlife.org>) is an international non-profit scientific and educational association, representing over 15,000 wildlife biologists and managers, dedicated to excellence in wildlife stewardship through science and education. Our mission is to ensure that wildlife and habitats are conserved through management actions that take into careful consideration relevant scientific information. TWS and our membership work to ensure that science plays an active role in policy and regulatory decision-making processes, and this letter’s comments provide our expert opinion about the proposed rule and definition. Our members regularly implement and advise on the ESA including critical habitat designations. It is important to consider this decision consistent with the ESA’s intent to recover species and the affirmative obligations that federal agencies have to assist in that recovery.

Evaluation of Habitat Definitions

Proposed Definition: The physical places that individuals of a species depend upon to carry out one or more life processes. Habitat includes areas with existing attributes that have the capacity to support individuals of the species.

¹ Rylander, J.C., M. Evansen, J.R.B. Miller, and J. Malcolm. 2020. *Defining Habitat to Promote Conservation Under the ESA*. July. Environmental Law Reporter, 50:10531-10539.

We are concerned that the phrase '*depend upon*' is too restrictive and does not account for habitats that may indirectly be necessary for a species survival. It is also unclear how the Service would determine whether habitat, that is used by a species, is depended upon or not. What test would be applied? Where would the burden of proof lie in this determination? Additionally, '*habitat*' is necessarily a non-restrictive term in order to meet the intent of the ESA, which is to ensure that a species both survives and recovers. For example, 'unused' and 'unoccupied' habitat are not synonymous with 'non-habitat' given that a threatened, endangered or rare species might use such spaces given the opportunity (Rylander et al. 2020). A wide variety of space and resource configurations of varying quality may be necessary for conservation, and quality of habitat for a species can change over time (e.g., due to cycles in predator and prey populations, fire and resulting vegetation succession, or cycling of soil nutrients) (Rylander et al. 2020). Species themselves may be dynamic in space and rely on dispersal habitat or migration stopovers; which they may or may not "depend upon." Further, interstitial spaces between habitat (e.g., dispersal corridors used only infrequently) may be essential to defining continuous Critical Habitat, but would appear to be excluded from the proposed definition.

A second concern is that the first and second sentences in the definition do not agree. The first sentence suggests that individuals must depend upon the physical place. The second sentence does not require that the areas be used, much less depended upon, so it would suggest that unoccupied areas with suitable attributes would alone be considered habitat.

A third objection is to the restriction of the term '*habitat*' to areas based on their existing attributes. This limitation appears to be an over-reaction to the ruling on *Weyerhaeuser vs. USFWS* 139 S. CT 361 (2018). Although the court's opinion required that Critical Habitat be limited to habitat for a species, it did not require that the determination be frozen in place as of the time that the Critical Habitat designation is made. Physical conditions, including vegetative conditions that often determine habitat suitability for a species, change over time due to a wide array of factors, including flooding, drought, fire, human perturbations, and vegetation succession after disturbance. Thus, '*habitat*' and, by extension, Critical Habitat, should be defined in the context of these changes. It is well documented that some species that are ESA-listed or under consideration for listing are adapted to occupy changing environments. Yellow-billed Cuckoos (*Coccyzus americana*) in California colonize mid-seral willow and cottonwood forests that establish in dynamic river systems. They then gradually disappear from those sites as the forest ages and they colonize other newly created mid-seral forests. Similarly, California Spotted Owls (*Strix occidentalis occidentalis*) occupy late-seral forests, but move locations, as individuals or over generations, as sites supporting older forests are destroyed by wildfire and "new" older forests develop through plant succession.

Restricting habitat, and Critical Habitat, only to those areas that are currently suitable will limit species' ability to adapt to change in their environments and could gradually lead to habitat and population diminishment. It does not align with the intent of the ESA to halt and reverse species extinction, and would hobble "conservation" as defined by the ESA.

In summary, the proposed definition of '*habitat*' is problematic because it is not fully and consistently defined and does not recognize the dynamic nature of habitats.

Alternative Definition: The physical places that individuals of a species use to carry out one or more life processes. Habitat includes areas where individuals of the species do

not presently exist but have the capacity to support such individuals, only where the necessary attributes to support the species presently exist.

Several aspects of the Alternative Definition are improvements over the Proposed Definition, but there are major deficiencies with this definition as well.

The term 'use' is clearly restrictive. There are several components of habitat that are not 'used' by the species, but that are nevertheless essential to species recovery. This includes degraded areas that could become suitable with reasonable restoration, areas that a species depends on but does not use (e.g., upstream habitat that delivers necessary sediment and nutrients), and areas that will become suitable temporarily (e.g., due to climate change) (Rylander et al.2020).

A second improvement is that the definition of '*habitat*' includes areas that may not be currently occupied, as long as they are currently suitable for occupation. As previously noted, suitable habitat that may be necessary to conserve for the long-term recovery of the species may be unoccupied for reasons other than habitat conditions that may affect populations, such as disease, extreme weather, competition with non-native species, and other factors. If an area is suitable for occupation, and has potential to be occupied in the future, it should be considered habitat. If such areas are critical to the recovery of species, they should be considered Critical Habitat, regardless of whether they are currently occupied.

A deficiency of the Alternative Definition is that it still only includes habitat that is *currently suitable*. It is unclear how this would be determined. If determination is made solely on habitat that is suitable at the time Critical Habitat is designated, then the definition may be too restrictive and could inhibit the recovery of species if habitat conditions change in the future. For example, if Critical Habitat for the California Spotted Owl was designated only as only those areas that currently have suitable habitat conditions for the owl, it could discourage the development of future habitat (by releasing them from ESA-based conservation requirements), and such areas may be needed to offset losses of current habitat in the future to fires. It may also prevent identification of important lands for restoration that is necessary for species population growth and recovery. Over time, a strategy that assigned a Critical Habitat designation only to habitat that is suitable for use at the time of designation would seem, under many circumstances, to result in long-term habitat losses, which would be contrary to the ESA's recovery intent and requirements.

The term 'habitat' must be defined to describe a higher order classification with broader intent than Critical Habitat. Within the *Weyerhaeuser vs. USFWS* 139 S. CT 361 (2018) analysis, the Supreme Court stated that "[i]t follows that 'critical habitat' is a subset of habitat that is 'critical' to the conservation of an endangered species." The Court's request for a definition of 'habitat' inherently distinguishes the habitat from Critical Habitat and requires the definition of 'habitat' to be less specific than Critical Habitat. Both the Proposed Definition and Alternative Definition draw restrictive similarities to the definition of Critical Habitat in the ESA.

In reviewing existing critical habitat designations and thinking how the proposed definition would be applied, it is obvious that some important habitat for some species would not have been included in previous designations. One example is Delta Smelt, for which habitat has been severely reduced and critical habitat was designated to include historic habitat currently behind levees. Under this proposed definition, these areas would not have been considered habitat and therefore not designated as critical.

However, these areas are critical to the recovery of the species and the designation has helped target restoration of tidal habitat. The limits placed using the proposed habitat definition would severely restrict what is habitat for species such as this which are imperiled because of extreme habitat modification. The definition put forth is at odds with the species recovery objects of the ESA.

Proposed Definition

The definition offered by Rylander et al. (2020) is scientifically defensible and should be adopted by the Service as the definition of '*habitat*.'

Habitat is the area or type of site where a species naturally occurs or that it depends on directly or indirectly to carry out its life processes, or where a species formerly occurred or has the potential to occur and carry out its life processes in the foreseeable future.

This definition is excerpted from the article, *Defining Habitat to Promote Conservation Under the Sea*, which was published in the Environmental Law Reporter in July 2020 (50:10531-10539). We agree with the authors' justification for the basis of this definition of habitat:

"This definition of 'habitat' is broad enough to encompass areas where a species currently lives, areas that species depend upon for portions of their life cycle, areas that could presently support reintroduction, areas that could reasonably be restored or could be expected to support range expansion in the future, and places that provide essential nutrients or services to such areas. This gives [the Service] the flexibility needed to determine specifically what portions of a species' range (current, historic, or potential) are in fact "critical" and require designation as areas "essential to the conservation of the species."

We encourage the Service to (1) consider adopting this definition of 'habitat' and (2) reference this publication in the consideration of the definition of 'habitat.' This definition of '*habitat*' encompasses the intent and requirements of the ESA and ensures the designation of Critical Habitat that is effective in supporting species recovery. Notably, this definition of '*habitat*' does not result inexorably in the inclusion of lands that could produce suitable habitat in the designation of Critical Habitat. Rather, it allows them to be included under conditions in which such inclusion is necessary to achieve species recovery.

Thank you for receiving these comments.

Sincerely,



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Conservation Affairs Committee Chair, San Francisco Bay Area Chapter
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