

Platte River through the Denver metropolitan area and downstream areas that have been subject to residential development, agriculture, and aggregate extraction.

*Comment 11:* Varying the outward extent of critical habitat by stream order does not consider topography or habitat variability. These distances are arbitrary. Lines should be based on site-specific mapping of primary constituent elements or county mapping of habitat that has been done in support of HCPs currently being developed.

*Our Response:* We received significant comment on this topic but little in terms of viable alternative approaches, applicable throughout the range of the Preble's. Site-specific mapping across the range of the Preble's would be a more precise method of designating critical habitat, but was not practical given the time, personnel and funding constraints under which we were working. Mapping done to define boundaries of HCPs varies by planning effort and is being done using criteria unlike those used to designate critical habitat. The most common suggestion we received was to standardize the distance outward for all streams regardless of stream order. We continue to believe that varying outward extent of critical habitat based on the width of existing riparian corridor and flood plain is appropriate, and that stream order provides an approximation of this width.

*Comment 12:* The upland habitat included in proposed critical habitat is too extensive. Preble's use of uplands proposed as critical habitat is not supported by radio-telemetry studies. Value of upland habitat to the Preble's varies by type; shortgrass prairie should not be included in critical habitat.

*Our Response:* We did not intend the outward extent of the proposed critical habitat to be limited to areas of most frequent Preble's use. Some commenters cited the distance outward that would include 95 percent of all radio-tracking locations from studies done at research sites as an appropriate outward limit of critical habitat, apparently with the belief that this would include a significantly smaller distance outward than was proposed. (We believe that it would actually increase the distance outward.) In determining which areas to designate as critical habitat we are required to consider primary constituent elements that are essential to conservation of the species, and that may require special management considerations and protection. We believe that corridors of critical habitat proposed, ranging from 220 m (720 ft) to 280 m (920 ft) in width (plus the river

or stream width) are appropriate to support the full range of primary constituent elements identified as essential for persistence of Preble's populations.

Frequently used habitat corresponds closely to vegetation currently present, and is dependent on current land use and recent site history. We do not have the time, funding or staffing to map vegetation over all stream reaches designated as critical habitat. The extent of designated critical habitat is designed to protect all primary constituent elements required by the Preble's, including geomorphological and hydrological processes that shape Preble's habitat. When a Federal action takes place that may affect critical habitat, a site-specific determination will be made as to the presence of primary constituent elements and potential adverse impacts. In some cases, it may be determined that the extent of critical habitat into upland areas is more limited than the outward boundary of critical habitat designated.

*Comment 13:* Stream edge is an "ephemeral reference point" and should not be used to designate boundaries of critical habitat. The proposal fails to identify "specific geographic areas" as required by the Act.

*Our Response:* Stream edge will eventually change, as will the stream centerline, 100-year flood plain and other pertinent lines of demarcation in Preble's habitat. Alternatives to the use of such boundaries would include extending limits of critical habitat to identifiable features such as the nearest road or ridgetop, or surveying an appropriate line. None of these alternatives were judged as desirable or practical as the method employed. Our critical habitat maps are based on recent GIS coverages depicting stream locations. Specific boundaries of designated critical habitat can be located on the ground based on stream edge, stream order, and occurrence of primary constituent elements.

*Comment 14:* Too many equivocations exist in the proposal. Phrases like "presumed to be," "appears that," and "believed to exist" appear too often.

*Our Response:* We are required to use the best available information regarding the Preble's. Often information available does not allow us to make statements of positive fact. We have tried to be honest and accurate in stating what is known with certainty and what is believed to be true based on the best scientific data available, and our professional judgement.

*Comment 15:* The 1998 listing of the Preble's is flawed. There is no evidence

that the Preble's is declining. The Preble's should be delisted.

*Our Response:* The reasons for listing the Preble's were outlined in the 1998 rule listing the Preble's as threatened. While additional populations have been documented, the threats to the Preble's described at the time of listing remain. A process exists for petitioning the Service to delist a species and such petitions are currently being assessed. No decisions have been made regarding these delisting petitions that would affect the final designation of critical habitat.

*Comment 16:* Structural measures to control and stabilize channels are not a threat to the Preble's. Stabilization of channels is positive. Such measures will not affect hydrology.

*Our Response:* At times, structural measures may stabilize channels where erosion is taking place and allow revegetation. In some instances where habitat is largely degraded, such stabilization may provide benefits over time. However, in general, structural measures limit the hydrological and geomorphological processes that maintain and restore habitats required by the Preble's. Elimination of natural meanders, channelization, and armoring of rivers and streams generally degrades riparian and flood plain habitats needed by the Preble's. Impact of specific projects on the Preble's and its habitat must be assessed on a case by case basis.

*Comment 17:* Irrigation of hayfields is beneficial to the Preble's. It promotes Preble's habitat where it would not otherwise be present.

*Our Response:* Irrigation of hayfields maintains more moist conditions over a wider area of streamside habitat for a longer period than would naturally occur. This promotes a wider area of dense riparian-type vegetation along streams, but is generally accompanied by repeated mowing, sometime very near the banks of streams, that may kill individual mice, disrupt breeding and other behaviors, leave little native vegetation, and destroy food sources during the period when the Preble's is preparing for hibernation. While some aspects of irrigated hayfields are undoubtedly beneficial to the Preble's, overall effects on Preble's populations are likely complex and have not yet been studied.

*Comment 18:* The Service should breed the Preble's in captivity and release them on unoccupied public lands or to supplement existing populations. The Preble's could be maintained in zoos or on small preserves; they do not need extensive habitat.