December 10, 2018

Public Comments Processing
Attn: FWS-R4-ES-2018-0057
U.S. Fish and Wildlife Service, MS BPHC
5275 Leesburg Pike, Falls Church VA 22041-3803

To whom it may concern;

Please accept these comments on behalf of American Bird Conservancy. We appreciate the U.S. Fish and Wildlife Service's decision to protect the Black Rail under the Endangered Species Act. In regard to the proposal for the Black Rail to be listed as "Threatened", we ask that the Service consider either protecting the species as "Endangered" or substantially increasing the protective measures provided in the listing decision and 4(d) rule.

Specifically, we are concerned by:

- Small, vulnerable, and declining population size and suitable habitat acreage.
- Significant portion of habitat where species has already been extirpated.
- Lack of adequate protections with "Threatened" status and proposed 4(d) rule.
- Lack of adequate regulatory mechanisms to protect habitat or ameliorate sea level rise.
- Lack of designated Critical Habitat.
- Analysis indicating the subspecies will likely be extinct in the foreseeable future by 2068.

We commend the Service for analysis in the proposed rule and Species Status Report for the Eastern Black Rail, and will be utilizing appropriate text to underscore our concerns and recommendations for stronger protective measures, and analysis on issues to augment the draft. Our thanks to the Center of Conservation Biology for contributions to Black Rail conservation and excerpts included in this text.

Small, Vulnerable, and Declining Population Size and Suitable Habitat Acreage

> We found the four extant analysis units (Southeast Coastal Plain, Mid-Atlantic Coastal Plain, Great Plains, and Southwest Coastal Plain) to have very low occupancy probabilities ranging from 0.099 to 0.25. The results also indicated fairly high site extinction probabilities with accompanying low site persistence. (p. 16 of public inspection desk version)
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> North Carolina shows a severe decline in the number of occupied sites, with only four properties occupied in 2014–2015, down from nine in 1992–1993 (Watts 2016, p. 80). Additional surveys in 2017 yielded no new occupied sites in coastal North Carolina (B. Watts and F. Smith 2017, unpublished data). South Carolina shows a limited distribution, with two known occupied areas (Wiest 2018, pers. comm.) and an estimated 50 to 100 breeding pairs, leaving Texas and Florida as the current strongholds for the Southeast. At the time of the 2016 coastal assessment, it was surmised that coastal Georgia may support

a breeding population of unknown size (Watts 2016, pp. 93–95); however, a coastwide survey in 2017 at 409 survey points in Georgia yielded no detections of eastern black rails (B. Watts and F. Smith 2017, unpublished data). In short, across the Atlantic and Gulf Coasts, recent observations show poor presence inland and a widespread reduction in the number of sites used across coastal habitats (Watts 2016, p. 79). (p. 20)

Eastern black rail analysis units currently have low to no resiliency in the contiguous United States (Service 2018, pp. 79-82). The Great Plains, Southwest Coastal Plain, and Southeast Coastal Plain analysis units have low resiliency based on the dynamic occupancy model results, which indicate very low occupancy probabilities in each modeled analysis unit: 0.25 in the Southwest Coastal Plain, 0.13 in the Great Plains, and 0.099 in the Southeast Coastal Plain. The Mid-Atlantic Coastal Plain analysis unit currently exhibits very low resiliency for the eastern black rail. It supports fewer birds and has fewer occupied habitat patches than the Southeast Coastal Plain analysis unit. (p. 21)

Despite having a wide distribution, the eastern black rail currently has low redundancy across its range. With the loss of three analysis units in upper latitudes of the range, the subspecies has reduced ability to withstand catastrophic events, such as hurricanes and tropical storms, which could impact the lower latitudinal analysis units. Given the lack of habitat connectivity, and patchy and localized distribution, it would be difficult for the subspecies to recover from a catastrophic event in one or more analysis units. (p.21)

Wetland losses for the States within the eastern black rail's historical range have been from 9 percent to 90 percent, with a mean of 52 percent (Dahl T. E. 1990, p. 6). Similarly, most of the native grassland/prairie habitats associated with eastern black rail habitat have been lost since European settlement (Sampson and Knopf 1994, pp. 418– 421). (p. 25)

The eastern black rail also uses the transition zone (ecotone) between emergent wetlands and upland grasslands. These transitional areas are critical to eastern black rails, as they provide refugia during high-water events caused by precipitation or tidal flooding. These habitat types have also experienced significant declines over time (Sampson and Knopf 1994, pp. 418–421), with many areas within the eastern black rail's historical range losing over 90 percent of their prairie habitat. (p. 25)

Despite regulatory efforts to minimize the loss of wetland habitats, losses and alterations continue to occur to habitats occupied by the eastern black rail. Marshes continue to face substantial impacts from dikes, impoundments, canals, altered freshwater inflows, erosion, relative sea level rise, tidal barriers, tropical storm events, and other natural and human-induced factors (Adam 2002, entire; Turner 1990, entire; Kennish 2001, entire; Gedan *et al*. 2009, entire; Tiner 2003, p. 513). Estuarine emergent wetland losses are mostly attributable to conversion to open water through erosion (Dahl and Stedman 2013, p. 37), while freshwater emergent wetland losses appear to be the result of development (Dahl and Stedman 2013, p. 35). Because the rail is a wetland-dependent subspecies, the loss and alteration of palustrine and estuarine wetlands and associated grassland habitats have a negative impact. (p. 25-26)

When viewing historical occurrences on the State level compared to what is known of present distribution, the range contraction (from Massachusetts to New Jersey) and site abandonment (patchy coastal distribution) noted by Watts (2016, entire) appear to be occurring throughout the eastern United States. Over the past 10 to 20 years, reports indicate that populations have declined by 75 percent or greater. North of South Carolina, occupancy has declined by 64 percent and the number of birds detected has declined by 89 percent, equating to a 9.2 percent annual rate of decline (Watts 2016, p. 1). In relative terms, regional strongholds still exist for this subspecies; however, the best available scientific data suggest that the remaining strongholds support a relatively small total population size: an estimated 1,299 individuals on the upper Texas coast within protected areas prior to Hurricane Harvey, and an estimated 355 to 815 breeding pairs on the Atlantic Coast from New Jersey to Florida (including the Gulf Coast of Florida). (p. 49-50)

We identify the foreseeable future for the eastern black rail to be 25 to 50 years from the present. We consider 25 to 50 years "foreseeable" in this case because this timeframe includes projections from our

modeling efforts and takes into account the threats acting upon the eastern black rail and its habitat and how we consider the eastern black rail will respond to these threats in the future. For all five plausible scenarios, all analysis units exhibited a consistent downward trend in the proportion of sites remaining occupied after the first 25 years (by 2043), with extirpation for all analysis units by 2068. (p. 54)

We did not find that it is currently in danger of extinction throughout its range. (p.55)

Please note that this final conclusion the Black Rail is not in danger of extinction appears to contradict the paragraph above, and the overwhelming weight of the evidence provided by the Service's analysis.

Significant Portion of Habitat Where Species Is Extirpated

Based on available data, we have concluded that the New England, Appalachians, and Central Lowlands analysis units are effectively extirpated. While these three analysis units historically did not support abundances of the eastern black rail as high as the other four analysis units, an evaluation of the current status information, including the paucity of current records, negative survey results, and the demonstrated range contraction throughout these areas, supports our conclusion that the eastern black rail is effectively extirpated from these analysis units. (p. 15)

Current Condition of Eastern Black Rail
Historically, the eastern black rail ranged across the eastern, central, and southern United States; historical records also exist from the Caribbean and Central America. It occupied multiple areas of wetlands (including salt marshes, coastal prairies, and hay fields) throughout the range; approximately 90 percent of documented breeding-season occurrence records occurred at coastal locations and less than 10 percent were inland records, with more than 60 percent of the inland records occurring before 1950 (Watts 2016, entire). The eastern black rail also occupied multiple areas of wetlands within each analysis unit.

Within the northeastern United States, historical (1836–2010) records document the eastern black rail as present during breeding months from Virginia to Massachusetts, with 70 percent of historical observations (773 records) in Maryland, Delaware, and New Jersey (Watts 2016, p. 22). Maryland, Delaware, and New Jersey are considered historical strongholds for eastern black rail in this region of the United States (the Northeast) as well as across the subspecies' entire breeding range (Watts 2016, p. 22), due to the total number and frequency of observations reported over time. Virginia, New York, and Connecticut account for an additional 21 percent of the historical records (235 records) from the Northeast (Watts 2016, p. 22). Recent (2011–2016) records from the Northeast are low in number (64 records), with almost all records restricted to outer coastal habitats (Watts 2016, pp. 22, 24). The distribution of the recent records points toward a substantial southward contraction in the subspecies' range of approximately 450 kilometers (280 miles), with vacated historical sites from 33 counties extending from the Newbury marshes in Massachusetts to Ocean County, New Jersey (Watts 2016, pp. 24, 119). Further, the distribution of the recent records has become patchy along the Atlantic coast, and an evaluation of the records within the 15 counties still currently occupied suggests an almost full collapse of the eastern black rail population in the Northeast (Watts 2016, p. 24). (p. 17-18)

Lack of Adequate Protections with Threatened Status and Proposed 4(d) Rule

We commend the Service for the best practices for wetlands conservation proposed in the draft rule.

Currently, the eastern black rail is impacted by the loss, degradation, and fragmentation of wetland habitats resulting from sea level rise along the coast and ground-and surface-water withdrawals across the subspecies' range. Incompatible land management techniques, such as application of poorly timed and planned prescribed fires, intense grazing, or haying, also have negative impacts on the eastern black rail and its habitat, especially when conducted at sensitive times, such as the breeding season or the flightless molt period. (Status Assessment, p. v)

> Controlling water levels and prescribed fire are the two most widely used methods for marsh management but in many cases the timing or extent of these tools are being used to benefit one species are in direct conflict with requirements of the black rail. Conducting prescribed burns or raising water levels of impounded marshes during inappropriate times or inappropriate lengths of time can negatively impact black rails during the breeding and non-breeding season. There is very little information on the compatibility of these widely used management tools for black rails. This notion suggests the need for research and summary of how management directly influences black rail populations. (Center for Conservation Biology)

The analysis did not include discussion about impacts of urbanization. We also recommend additional protection measures for infrastructure development and construction activities to reduce or mitigate for loss or degradation of marsh, or adjacent habitats. We also request the Service consider a broader analysis to assess habitat differences between occupied areas, and heavily populated coastal States where Black Rails are now extirpated.

> The Atlantic and Gulf coasts have lost nearly 9 % of their estuarine marsh cover since the 1950s. Most of these losses are attributable to the conversion of marsh to agriculture or coastal development, such as urbanization, suburbanization, and road/bridge construction. Black rails rely on the highest portions of marshes that are rarely inundated by tidal waters. Because of the drier hydrology, the high marsh has typically been the most favored wetland zone for filling and development.
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> Coastal development can also lead to a host of negative impacts on black rails beyond direct habitat loss. Many salt marshes positioned near development have been ditched for mosquito control, submerged by water control structures, and used as grazing areas for livestock. Development of upland areas are known to reduce the bird diversity and abundance of marshes they interface. Black rail territories are typically located directly adjacent to upland habitats so are particularly vulnerable to conversion of adjoining forest land to human uses.
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> Coastal counties now support some of the largest urban concentrations in the United States. The demand for new development by an ever burgeoning human population within coastal zones will bring another era of impacts on black rail habitats unless appropriate management is undertaken. (Center for Conservation Biology)

Predation was identified as a threat, but no adequate protective measures such as best management practices to control non-native, invasive predators are proposed in the 4(d) rule. Domestic cats are not native to North America and predate billions of mammals, birds, reptiles, and amphibians each year. Cats are abundant in suburban and urban areas, and frequently found on National Wildlife Refuges and other important habitats. We recommend specific management requirements to reduce risk of predation by cats. Other predators such as coyotes and raccoons also pose risks, especially in developed areas adjacent to black rail habitat. The presence of humans and their inevitable refuse attracts mammalian and avian predators such as coyotes, raccoons, and gulls. Inclusion of native and non-native predators in management actions is suggested, perhaps in concert with research or monitoring efforts examining the impacts of mammalian predation on breeding black rails.

> Marsh birds experience higher levels of nest predation when water levels are low and where marshes are surrounded by development. Black rails may be particularly vulnerable to nest predators because they rely exclusively on high marsh zones for breeding. The high marsh zone is infrequently flooded by tidal waters providing mammalian predators greater access. Additionally, high marsh zones are positioned directly adjacent to upland habitats that are the source of mammalian nest predators. (Center for Conservation Biology)

Lack of Adequate Regulatory Mechanisms to Protect Wetlands or Ameliorate Sea Level Rise

We are concerned that the proposed rule does not identify lack of adequate regulatory mechanisms as a threat to the Black Rail. The analysis contains numerous examples how habitat loss and sea level rise have harmed the Black Rail, and may likely cause its extinction in the foreseeable future. We recommend that the Service identify the lack of adequate regulatory mechanisms for wetland protection as a threat, and include additional protective measures to prevent wetland loss. For development or restoration projects requiring the NEPA scoping process that may negatively impact wetlands and habitats used by black rails, Environmental Impact Statements and other actions should adequately address protective efforts and/or mitigation in concert with a fully developed project and project time line. The public should have ample time to respond accordingly to proposed actions (i.e. 90 days).

> This dramatic falling trend has decreased with recognition of the benefits of wetland habitats and subsequent increasing conservation and regulatory measures. This was especially true for estuarine wetlands. However, despite regulatory efforts to minimize the loss of wetland habitats, losses and alterations continue to occur to habitats occupied by the eastern black rail. Marshes continue to face substantial impacts from dikes, impoundments, canals, altered freshwater inflows, erosion, relative sea level rise, tidal barriers, tropical storm events and other natural and human-induced factors (Turner 1990, entire; Kennish 2001, entire; Adam 2002, entire; Tiner 2003, p. 513; Gedan et al. 2009, entire). (Status Assessment, p. 33)

Given the recent information from IPCC and rising U.S. carbon emissions, it is imperative that the government begin taking action to protect citizens and property from sea level rise and other expected impacts of climate change, and to rapidly reduce carbon emissions. The analysis makes predictions based on anticipated sea level rise, but proposes to do nothing to protect the Black Rail from this known impact.

> Sea level rise will amplify coastal flooding associated with both high tide floods and storm surge (Buchanan, Oppenheimer, and Kopp 2017, p. 6). (p. 30)

> Sea level rise will reduce the availability of suitable habitat for the eastern black rail and overwhelm habitat persistence. (p. 32)

> Because of their low position within the landscape, salt marshes will be one of the first habitats consumed by rising seas. One way salt marshes can continue to exist with sea-level rise is to migrate upslope where topography is favorable. However, barriers to salt marsh transgression such as sea-walls and the impermeable surfaces of developed land will eventually squeeze marshes out of existence. The high marsh zone that black rails rely on for breeding are particularly susceptible to be converted to low marsh where barriers to landward migration are present.

> The Chesapeake Bay region has long been known as a population stronghold for breeding black rails. Simulations of the impact of sea-level in this region indicate that 51 % of black rail habitats will become submerged and vanish by the year 2100. Moreover, simulations made under an expected acceleration in the rate of sea-level rise would eliminate 99 % of black rail habitats in the Chesapeake Bay region.

> The coastal zone of the Atlantic and Gulf coasts are suffering from an ever growing human pressure of development. Improved regulation and spatial planning of development and barriers to marsh transgression are needed to proactively reduce the impacts of sea-level rise on black rails and their habitats. (Center for Conservation Biology)

Sea level is not an inevitable process that cannot be changed or influenced. There is a big difference between a seven foot rise, a seventy foot rise, and the three hundred foot rise of an ice-free world. Society, including government decisions will decide that. We ask the Service to identify the lack of adequate regulatory mechanisms to stem sea level rise as a threat to the Black Rail, and to recommend protective regulations.

Lack of Designated Critical Habitat

We are concerned that the critical habitat analysis failed to provide any analysis about the potential benefits of critical habitat designation. Given that habitat loss and degradation are identified as crucial threats, providing protection for habitat would be prudent. We recommend designating all existing occupied habitat as Critical Habitat and to identify additional suitable areas for habitat restoration and inland migration.

Moreover, how the impact of sea level rise is addressed could have broad impacts on habitat and is a likely nexus of federal decision making and spending. The Black Rail would therefore benefit from the Sec. 7 consultation process whenever its Critical Habitat might be impacted.

> These emergent wetland gains due to landward expansion of sea level can be hampered by barriers to wetland migration such as roads, levees, canals, and other social infrastructure. One limit to salt marsh movement is referred to as the "coastal squeeze" problem, which refers to natural and/or human-created barriers which limit salt marshes from becoming established in new areas as relative sea level rises. This includes natural barriers (e.g., topographic features), existing barriers related to human actions (e.g., shoreline rip-rap, hardened surfaces) intended to be protective barriers for coastal human communities or infrastructure, and future physical barriers being considered as part of future efforts to reduce the effects of sea level rise (Torio and Chmura 2013, entire; Armitage et al. 2015, entire; Enwright et al. 2016, entire; White and Kaplan 2017, entire). (Status Assessment, p. 35)

Concerns raised about birdwatching impacts can best be addressed through education efforts. Moreover, the decision ignores the availability of rail locations from other web-based sources.

The Eastern Black Rail Will Likely be Extinct within the Foreseeable Future by 2068

This is chilling analysis that underscores why additional habitat protection and new regulatory mechanisms are urgently needed to address sea level rise caused by climate change.

> Specifically, they predicted a high probability of complete extinction for all four analysis units under all five scenarios by 2068. The model predicted that, depending on the scenario, the Southeast Coastal Plain and Mid-Atlantic Coastal Plain analysis units would reach complete extinction between 35 and 50 years from the present; the Great Plains analysis unit would reach complete extinction between 15 to 25 years from the present; and the Southwest Coastal Plain analysis unit would reach complete extinction between 45 to 50 years from the present. (p.47)

> Under our future scenarios, the Mid-Atlantic Coastal Plain, Great Plains, Southwest Coastal Plain, and Southeast Coastal Plain analysis units generally exhibited a consistent downward trend in the proportion of sites remaining occupied after the first approximately 25 years for all scenarios. Given that most of the predicted declines in eastern black rail occupancy were driven by habitat loss rates, and future projections of habitat loss are expected to continue and be exacerbated by sea level rise or groundwater loss, resiliency of the four remaining analysis units is expected to decline further. We expect all eastern black rail analysis units to have no resiliency by 2068, as all are likely to be extirpated by that time. (p. 48)

> Under our future scenarios, the Great Plains analysis unit is projected to be extinct within the next 15 to 25 years, which will result in the loss of that higher latitudinal representative unit for the subspecies. In addition, the three remaining analysis units (Mid-Atlantic Coastal Plain, Southwest Coastal Plain, and Southeast Coastal Plain) are predicted to decline and reach extinction within the next 50 years. (p. 48-49)
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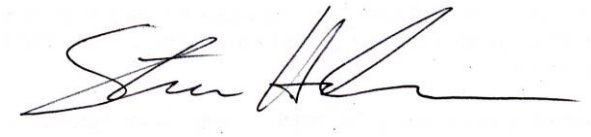
> Under current condition, we determined that the subspecies is effectively extirpated in three of the seven AUs resulting in a large range contraction and a current low redundancy for the subspecies. We analyzed the four remaining AUs under future scenarios and determined the eastern black rail will have zero redundancy under all plausible scenarios by 2100. (Status Assessment, p. ix)

Thank you for considering these comments. American Bird Conservancy is committed to working with the Service to advance recovery of the Black Rail, and our staff would be happy to discuss opportunities to advance habitat restoration.

Sincerely,



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