

Eastern Black Rail, Listed as Threatened with Final 4(d) Rule:

Section 4(d) of the Endangered Species Act (ESA) directs the USFWS to issue regulations deemed “necessary and advisable to provide for the conservation of threatened species.” It allows the USFWS to promulgate special rules for species listed as threatened (not endangered) that provide flexibility in implementing the ESA. The USFWS uses 4(d) rules to target the take prohibitions to those that provide conservation benefits for the species. This targeted approach can reduce ESA conflicts by allowing some activities that do not harm the species to continue, while focusing efforts on the threats that make a difference to the species’ recovery.

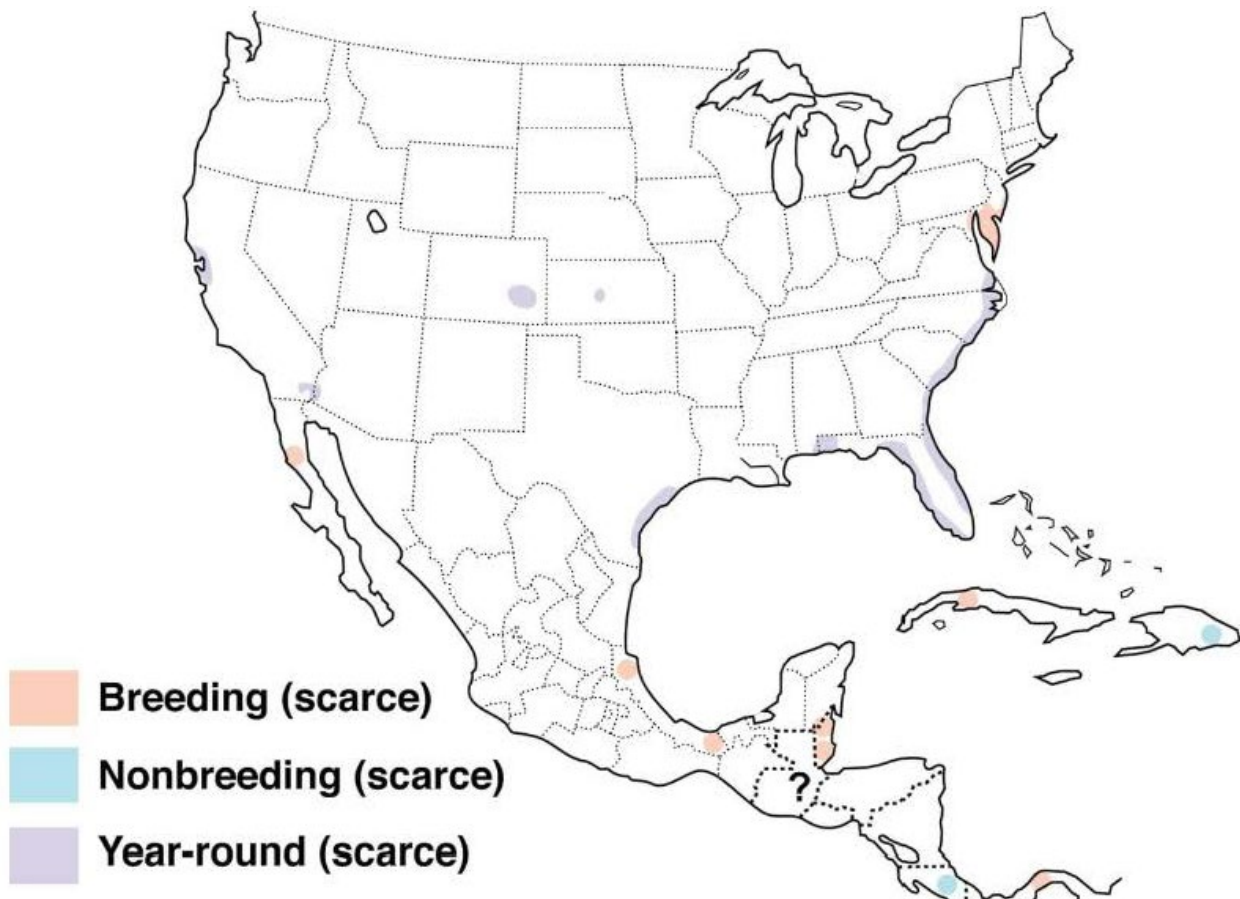
For the Eastern Black Rail (subspecies *Laterallus jamaicensis jamaicensis*; BLRA), the 4(d) rule tailors protections to areas occupied by the bird. The rule is designed to protect the BLRA while minimizing regulatory requirements for landowners, land managers, government agencies and others within the species’ range.

<https://www.govinfo.gov/content/pkg/FR-2020-10-08/pdf/2020-19661.pdf>.

Eastern Black Rail Range in North America:

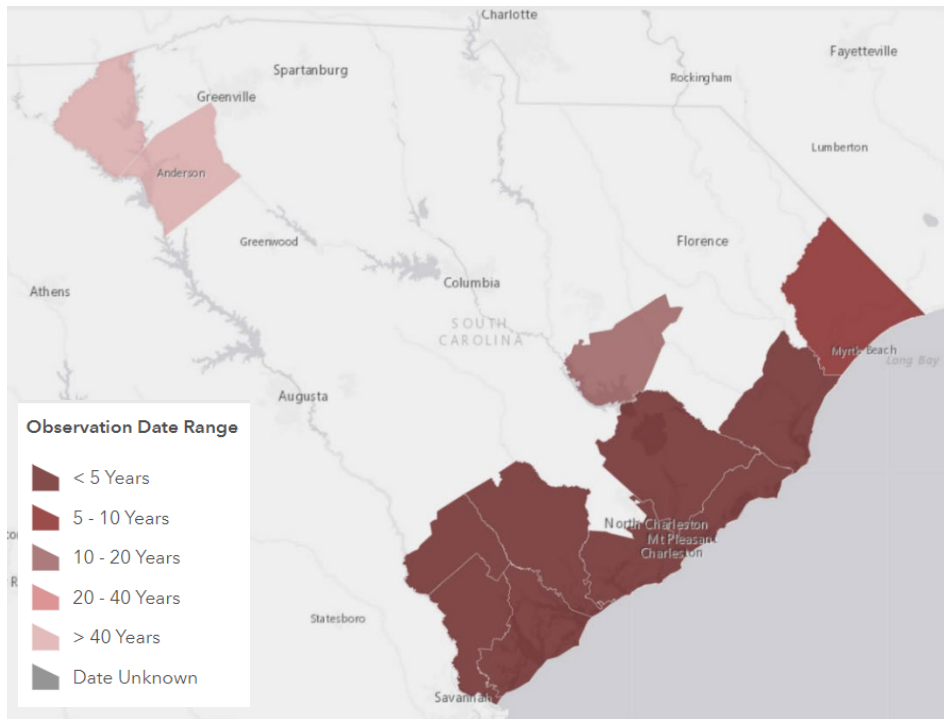
This map shows the BLRA range in North America.

https://www.allaboutbirds.org/guide/Black_Rail/maps-range



Eastern Black Rail Range in South Carolina:

Map from the SCDNR Heritage Trust Program Priority Species Database.



Primary Conservation Provision, Habitat Management within Eastern Black Rail Range:

BLRA reside in marsh areas that harbor moist soil with scattered small pools and dense emergent vegetation. Plant structure is considered more important than plant species composition. BLRA need elevated refugia to escape high water events and forage for invertebrates and seeds in moist to saturated substrates interspersed with or adjacent to very shallow water (<1 inch deep). BLRA are found in the same wetlands year after year when habitat conditions are suitable. If suitable, the wetland may be occupied year-round. Refer to the above map, check the T&E database in Desktop and work with an NRCS biologist to determine if your project area might contain BLRA.

Any incidental take of birds is not prohibited by the 4(d) rule if these conservation measures are followed:

- Prescribed burns are allowed only if best management practices that minimize negative effects are used, including:
 - Conduct burning on a rotational basis to maintain a broad range of habitat conditions. In any given calendar year, maintain at least 50% of habitat (*i.e.* dense overhead cover) within the management boundary.
 - Utilize prescribed fire tactics that provide unburned refugia allowing birds to survive a fire (*e.g.*, short flanking, backing fires). Apply prescribed fire under fuel and weather conditions (*e.g.*, soil moisture, relative humidity) that are most likely to result in patchy unburned habitat to serve as refugia from fire and predators.
 - Plan ignition tactics, rates of spread, and flame lengths to allow for wildlife escape routes. Avoid using ring and strip head fires that have long unbroken boundaries and/or that come together in a short period of time and that consume essentially all vegetation. If aerial ignition is used, avoid large fastmoving fires.
- Avoid mowing, haying, and other mechanical treatment activities in persistent emergent wetlands when the activity occurs during the nesting, brooding, or flightless molt periods (March 1 through October 31).
- Avoid grazing activities in persistent emergent wetlands that do not maintain at least 50% of BLRA habitat in any given calendar year within a management boundary.
- Avoid long-term or permanent damage, fragmentation, or conversion of persistent emergent wetlands and the contiguous wetland-upland transition zone to other habitat types or land uses that do not support BLRA.

Adapted from <https://www.govinfo.gov/content/pkg/FR-2020-10-08/pdf/2020-19661.pdf>.

If the above cannot be followed, the 4(d) rule provides further *exceptions from prohibitions* to avoid incidental take.

Practices That Can Help:

Create Wet Meadow Habitat: The two most promising approaches in SC are the creation of new wet meadow habitat that is very actively managed for BLRA and intensive management of the few impoundments with suitable BLRA habitat. Specifically, irrigation used to supplement rainfall in wet fields with suitable vegetation may maintain habitat that meets resource needs. Wet or otherwise unsuitable pastureland could also be converted to BLRA habitat through careful irrigation near known inhabited sites such as around the ACE Basin.

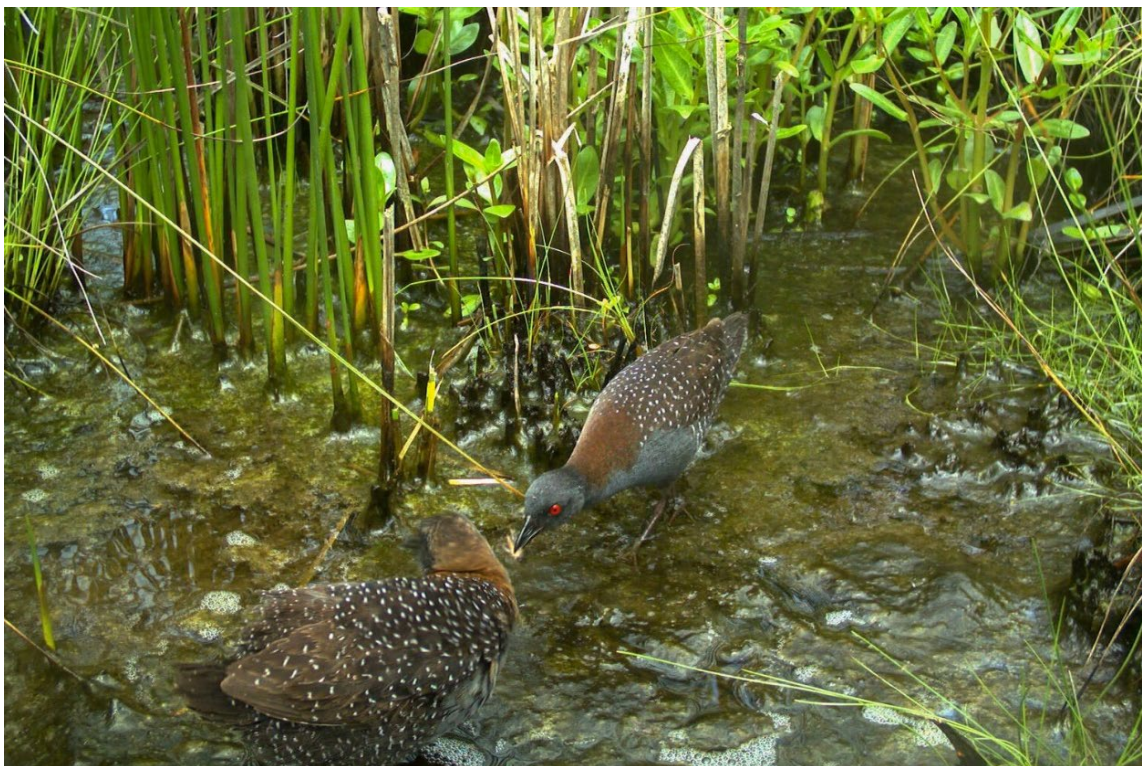
Protect and Manage High Marsh and Wet Meadow Habitat: BLRA habitat is typically the higher elevations in estuarine and palustrine persistent emergent wetlands and where these wetlands meet upland edges (the lower leg of a BLRA is only $\frac{3}{4}$ " tall so they need very shallow water adjacent to uplands). Protect habitat by conducting management outside of nesting/molting season and protect/provide areas of escape from flooding especially from March through October.

Retard Plant Succession: When BLRA and other marsh birds are present, use slow burning techniques (backing/flanking) and avoid clean burns that do not leave patches of vegetation where rails can hide. Avoid burning during nesting season. Burn approximately every 3 to 5 years. Disking, mowing, and other measures that restore natural disturbance regimes can also be used. No disturbance in the nesting/brooding/molting season from March through October.

Manage Shallow Water Impoundments that have topographic variations and areas where it is possible to maintain very shallow nontidal water (1/2 to 1"). To avoid killing invertebrate prey supply, maintain consistent salinity level and do not allow soil to completely dry out. Rotate management among impoundments and flood or burn periodically to set back succession. Periodically flooding impoundments throughout the nonbreeding season (November – February) can be used instead of fire to kill some types of woody vegetation and may also improve soil and invertebrate prey availability (keeping the wetland available during the breeding season). However, repeated or prolonged flooding may kill desirable plant species such as clump cordgrass or create undesirably broken marsh. Note that waterfowl have different water level needs and management may not transfer to other species desired by landowners.

Excerpted from <https://www.dnr.sc.gov/swap/supplemental/birds/blackrail2015.pdf>.

Photos from SCDNR of BLRA in South Carolina:



A male Eastern black rail offers an insect to a female during courtship. (Photo: Christy Hand/SCDNR, taken under SCDNR research permit BB-20-06)

Adult Eastern black rails are unable to fly for approximately three weeks during the late summer while molting wing feathers. (Photos: Christy Hand/SCDNR, taken under SCDNR research permit BB-20-06)



SCDNR staff documented Eastern black rails raising chicks in impounded high marsh habitat in coastal South Carolina. This type of habitat is rare and requires careful management. (Photo: Christy Hand/SCDNR)

Snapshot from SCDNR research video showing Eastern black rail chicks (Photo: Christy Hand/SCDNR, taken under SCDNR research permit BB-20-06)



See: <https://sccoastalresources.com/home/2020/9/28/behind-ghost-bird-key-discoveries-about-the-elusive-black-rail>