

-- Eastern Black Rail --

Effects Determination Guidance for Endangered & Threatened Species (EDGES)

Brantley, Bryan, Camden, Chatham, Glynn, Liberty, Greene, McIntosh, and Troup Counties

Species covered by this EDGES: Eastern black rail (*Laterallus jamaicensis ssp.*) (BLRA)



The eastern black rail (*Laterallus jamaicensis ssp.*) (BLRA) is Endangered Species Act (ESA) listed as 'Threatened'. Threats include habitat loss, sea level rise and tidal flooding from increasing storm intensity and frequency. There is an ESA 4(d) rule for the BLRA. Prohibited activities include incidental take that causes long-term or permanent damage, fragmentation, or conversion of BLRA habitat to other habitat types that do not support the bird.

Habitat - Black rail habitat is higher elevations in Estuarine and Palustrine persistent emergent wetlands and where these wetlands meet upland edges. The BLRA species habitat needs are; the higher elevations of salt, brackish, or freshwater marsh, dense herbaceous vegetative cover that allows movement underneath the canopy, plant structure is considered more important than plant species composition, elevated refugia to escape high water events, and moist to saturated substrates interspersed with or adjacent to very shallow water.

On the Georgia Coast, habitat is the higher elevations of Estuarine Persistent Emergent Wetlands dominated by saltmarsh cordgrass (*Spartina alterniflora*) and needlerush (*Juncus roemerianus*). Inland habitat in both non-tidal wetlands and low salinity tidal areas is Palustrine Persistent Emergent Wetlands contain a vast array of grasslike plants such as cattails (*Typha* spp.), bulrushes (*Scirpus* spp.), sedges (*Carex* spp.); and true grasses such as reed (*Phragmites australis*). Inland minimum habitat size, based on the breeding home range, is 3.2 acres (1.3 ha). Shrub-scrub and forested areas are not black rail habitat.

Should BLRA habitat be present, the USFWS recommends a presence/absence survey for the bird. Survey protocol recommended to be used in Georgia can generally be described as playback/listening of recorded bird calls during mating season, with three surveys conducted between April and July.

For more information on the eastern black rail, see the USFWS Species Status Assessment (SSA) at: <https://ecos.fws.gov/ServCat/DownloadFile/154242> .

Applicant:

1. IPaC indicates BLRA are potentially affected by activities in the project location.
 - a. No No effect. Provide IPaC information to the Savannah District with application/PCN.
 - b. Yes Go to #2.

2. The U.S. Fish and Wildlife Service’s Georgia Field Office (FWS-GA) provided documentation stating project impacts to BLRA were likely to be minimal (FWS-GA signed letter or sticker, T&E survey where FWS-GA provided concurrence with negative findings, or similar documentation).
 - a. No Provide completed EDGES Applicant Consultation Form, with supporting documentation to the Savannah District with 404 application/PCN. Supporting documentation should include a habitat description and results of BLRA presence/absence surveys if completed. Habitat descriptions should provide sufficient detail to determine whether BLRA habitat is present. Wetland dataforms may be used, for example, to document vegetation structure and composition
 - b. Yes Provide FWS-GA project review documentation and/or survey data to the Savannah District with application/PCN.

Savannah District:

3. Will BLRA habitat be affected by the project (habitat present within action area and activity will result in an effect to habitat)?
 - a. No No effect. No additional coordination with FWS-GA is necessary.
 - b. Yes Go to #4.

4. The USFWS recommends presence/absence surveys following the protocol described at the end of this EDGES. Were BLRA presence/absence surveys completed?
 - a. No Based on IPaC listing and presence of habitat, Savannah District assumes BLRA is present. The project May Affect the BLRA. Go to #6.
 - b. Yes Go to #5.

5. Did the surveys find presence of the BLRA?
 - a. No May affect, not likely to adversely affect (MA NLAA). Consultation complete. No additional coordination with FWS-GA is necessary. FWS-GA concurrence is assumed. The effects of the action on the BLRA are considered to be discountable or insignificant. Discountable effects are those extremely unlikely to

occur. Insignificant effects relate to the size of the impact and should never reach the scale where take occurs. Based on best judgment, a person would not: (1) be able to meaningfully measure, detect, or evaluate insignificant effects; or (2) expect discountable effects to occur.

b. Yes May affect. Go to #6.

6. Are the effects of the action on the BLRA considered to be discountable, insignificant, or wholly beneficial? Beneficial effects are contemporaneous positive effects without any adverse effects to the species. Insignificant effects relate to the size of the impact and should never reach the scale where take occurs. Discountable effects are those extremely unlikely to occur. Based on best judgment, a person would not: (1) be able to meaningfully measure, detect, or evaluate insignificant effects; or (2) expect discountable effects to occur.

a. No May affect, likely to adversely affect. Please consult with FWS-GA.

b. Yes May affect, not likely to adversely affect (MA NLAA). Consultation complete. FWS-GA concurrence is needed, in writing, for JPNs. Requests for concurrence should include an explanation of why the project ESA determination is MA NLAA. FWS-GA concurrence is assumed for other actions (i.e. NWP and LOP) unless a response is provided.

Presence / absence survey protocol for the eastern black rail in Georgia.

Surveys for the eastern black rail in Georgia should be based on the survey protocols used for the 2017 – 2018 Georgia BLRA survey. The protocol is described in: Smith, F. M., B. D. Watts, B. J. Paxton and L. S. Duval. 2018. Assessment of Black Rail Status in Georgia, Breeding Season 2017 and 2018 Summaries. Center for Conservation Biology Technical Report Series: CCBTR-18-10. College of William and Mary/Virginia Commonwealth University, Williamsburg, VA. 48 pp..

Survey protocol recommended to be used in Georgia can generally be described as playback/listening of recorded bird calls during mating season, with three surveys conducted between April and July.

Survey Playback Sources:

Ki-ki-kerr: Sourced from Cornell Lab of Ornithology, Macaulay Library in 2007.

Churt: Sourced from Christy Hand, South Carolina DNR

Growl: Sourced from Cornell Lab of Ornithology, Macaulay Library in 2007.

Eek-eek call: Sourced from Cornell Lab of Ornithology, Macaulay Library, Florida call.

Survey Windows: All coastal surveys will take place between 18 April and 21 July, with survey window #1 between 18 April and 17 May, window #2 between 18 May and 17 June, and window #3 between 18 June and 21 July. All inland surveys will take place between 1 May and 15 July, with survey window #1 between 1 May and 31 May, survey window #2 between 31

May and 21 June, and survey window #3 between 22 June and 15 July. There should be a 10-day minimum between surveys of the same point.

All coastal surveys will take place at night, between a half hour after sunset and will conclude by a half hour prior to sunrise. All inland surveys will follow standard SCDNR and USFWS protocols and start a half hour before sunrise to 3.5 hours after sunrise or 3.5 hours before sunset to .5 hours after sunset.

Survey Points: The number of survey points should adequately cover the BLRA habitat on the project site, keeping in mind that the survey should cover the project's area of impact. Surveyor(s) will stand at pre-selected survey point coordinates. Survey points should be marked with pin flagging (and labeled with survey point ID with a permanent marker in a nook of the flagging) during scouting, if visited, or the first survey of the season for ease of location through the rest of the season. Surveys are 10 minutes long at each point. Each point should be surveyed at least 3 times (e.g. windows #1, #2, and #3), with a 10-day minimum between surveys of the same point. Avoid sampling the same point repeatedly at the same time of day.

Broadcast Equipment Placement: The game caller should be placed on the ground near the center of the point (on road based surveys) or the bow of the boat during playback surveys. Surveyor should stand 5m away from caller if possible to better hear responses. When surveyors are surrounded completely by marsh, orient the caller toward magnetic north. At survey points located on the edge of open water or upland habitat, orient the broadcast caller towards the center of appropriate marsh habitat. Do not rotate the speaker during the broadcast survey. Speakers should not face the surveyors. Both speakers of the broadcast callers should be operational in open marsh and only the forward speaker operational when the surveying from the edge of open water or upland habitat. Sound pressure should be 70-80 dB at 3 feet in front of the speaker. The appropriate volume level on the FoxPro NX3 or NX4, in combination with this project's audio file, is illustrated in the figure below. When viewed straight on, the centerline of the volume knob should align with the trailing edge of the last marked volume setting. Replace batteries in game caller with freshly charged batteries at least every other day of surveys and daily, if necessary.

NX4 or NX3 volume level during surveys.



Weather Restrictions: Surveys should only be conducted when wind speed is <20 kmph (moderate breeze; dust and loose paper raised; small branches begin to move), and not during periods of sustained rain or heavy fog. Even winds <20 kmph affect the detection probability of marsh birds, especially BLRA, and perhaps even suppresses their calling behavior. Surveyors should postpone surveys if they believe winds (or other ambient noise) are dramatically affecting the detection probability. If wind speed increases to >20 kmph, or sustained rains/fog begin during a morning or evening survey window, surveyors should cease surveys for that window and visit unsurvey sites at another time.

Recording Bird Detections: Record the point number and Lat / Lon. Use the 4-letter American Ornithological Union (AOU) code: BLRA to indicate an eastern black rail detected. Each individual is recorded on a separate line and record minute by minute data.

Distance and direction: Record an estimate of the exact distance and the general direction (N, NE, E, SE, S, SW, W, or NW, or to the degree marker on a compass) to the initial detection of each individual BLRA.

Time of detection: Detections of each individual BLRA should be recorded minute-by-minute during the 10-minute survey period. Surveyors should distinguish and indicate the call type(s) of all BLRA detections during a given survey minute; Ki-ki-kerr, Churt, Growl, and/or Eek-eek calls. Abbreviations may be used and multiple call types may be recorded in a given minute (e.g., a black rail *ki-ki-kerr* followed by a *growl* could be recorded K, GR).

Birds detected at a prior survey point: If a surveyor suspects that a BLRA bird detected during a survey is an individual detected at a previous survey point, the surveyor should proceed to record the requisite detection data and record “detected at a previous point” in the comments column. When in doubt, be conservative as to whether an individual bird detected at the current

point was the same individual recorded at a previous point (i.e., make a note in the comments column).

Birds detected outside the survey period (approaching or leaving): Record any BLRA detected outside of the survey period by recording the distance and direction of the detection, indication the call type(s) in the “outside survey period” column, and recording your coordinates at the time of detection in the notes column. For example, if a BLRA is detected while moving between survey points, record the detection data on the data sheet for the prior (or forthcoming) survey point as described, and record coordinates of the location where you detected the BLRA.