Black Rail ESA determination guidelines

Assessment steps if habitat is potentially in the project area:

1. Does the project area have suitable Black Rail habitat? (habitat evaluation described below)
    a. If no suitable Black Rail habitat is present- no effect (NE)
    b. If suitable habitat is present, but no involvement/impact to the suitable habitat, the effect determination is May Affect, Not Likely to Adversely Affect (MANLAA)
2. If suitable habitat is present and will be impacted, AND the habitat **area is less than 1 hectare** (2.47 acres) in size **For presence absence survey, the size of the suitable habitat is not necessarily just what occurs in the project area but would also include the contiguous wetland system, even if not all the complex is considered suitable. See photo of wetland complex below.*
    a. The available habitat is below the threshold requiring surveys (not considered breeding habitat). Can assume presence with the effect of MANLAA. If possible, avoid clearing during breeding season as a conservation measure
        i. Regional breeding season:
            1. North & Central FL April 16 – July 15.
            2. Lake Okeechobee south Feb 16 – May 15.
            3. Discuss this conservation measure with the Project Manager and District Construction Office before making this commitment
3. If suitable habitat is present and it is larger than 1 hectare (2.47 acres) AND/OR previous surveys or records (FNAI, eBird, other surveys) have documented presence of Black Rails within general vicinity or wetland complex of project area, then **assume presence** in suitable habitat OR **conduct a survey** to determine presence/absence of Black Rail. Recommend contacting the Service to discuss the project and survey methodology.
    a. Assumption of presence is a May Affect (MA) until proven otherwise.
    b. A determination of MA will require formal consultation with the USFWS
    c. A determination of MA with the commitment to reinitiate consultation and perform a survey when the project is closer to construction must be accepted in writing by the Service.

Wetland Suitability Determination- what to look for when assessing habitat

- There is a very low detectability for this species even when specifically surveying for them, surveys cannot be done visually
    - Just because they aren't detected one year doesn't mean it isn't suitable habitat under different hydrologic conditions in another year and potentially occupied by birds
        - However- one set of surveys SHOULD be enough as long as conditions remain the same over time.
- Viable suitable habitat for Black Rail is **1 hectares (2.47 acres) or larger** - even if the wetland complex is not entirely suitable habitat (wetland complex photo example below)
    - Wetland Types: –
        - Tidal High Marsh –
        - Everglades –

        - Marl Prairie –
        - Inland wet prairies –
        - Managed wetlands
    - Suitable vegetation can be patchy within a wetland complex (pictured below)

- Habitat Characteristics (Things to look for to determine suitability):
    - Vegetation Structure:
        - **VERY** dense grassy herbaceous vegetation
            - Rushes, grasses, sedges including spartina, needle rush, and sawgrass
        - If you can see the ground, it's probably not dense enough
        - Highly dense vegetation can be in smaller patches (as small as 30m dia.) within a larger wetland complex and would be considered suitable. (wetland complex pictured below)
        - Sparse to no woody vegetation
    - Hydrology:
        - If vegetation structure is correct, the key determining characteristic is hydrology
            - Moist soil to 3 cm of water for food production
            - The presence of elevational transition zones (Microtopography)
                - They need areas that can be a little dry during high water/floods but still have at least moist soil during low water/droughts
        - Appropriate hydrologic conditions may fluctuate within seasons and yearly

When evaluating proposed projects under ESA Section 7, only looking for presence/absence

USFWS survey protocols can be found at the link below. This protocol is designed to be used to determine population estimates. For the purposes of FDOT projects, only presence/ absence surveys need to be conducted, which requires fewer field visits. Please work with FWS to help design a project specific survey based on site specific conditions. Survey highlights outlined below.

https://fws.gov/media/eastern-black-rail-call-response-survey-protocol-range-wide-monitoring

- **Survey Methods- considerations**
  When deciding on a survey method there are several things to consider based on site specific conditions. Considerations for a survey designed to meet the objectives can include tradeoffs between time spent in the field and time spent analyzing recordings and maintaining equipment. For presence/absence determinations, the call response survey should be acceptable, particularly in tidal systems with identified suitable habitat. For non-tidal systems where presence is highly dependent on precipitation and hydrology during the nesting season, the Service recommends the ARU method with equipment deployed for the length of the breeding season or until detection. There are currently no guidelines available for the ARU survey method for black rail and it should be noted that ARU recordings do not provide direction or distance information. Additionally, depending on the length of time the equipment is set to record each day, surveys may require multiple visits during the breeding

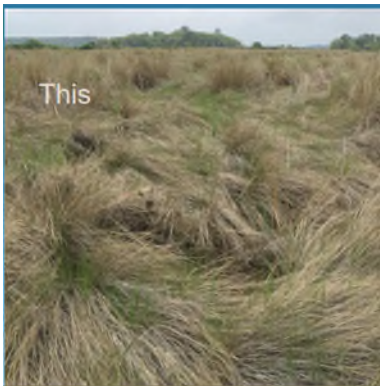
season to switch out batteries and memory cards with additional time needed for an experienced person to analyze the recordings.

- **Survey Design- general**
    - Survey points should be a MINIMUM of 400m apart and within a 100m radius around Action Area
    - Surveys should be conducted a minimum of 5-7 times within a nesting season by a trained Black Rail surveyor, or ARUs deployed for the length of the breeding season or until detection.
    - Two Critical Time Periods to conduct surveys
        - **Nesting Season (Determines presence/absence)**
            - Everglades (area from Lake Okeechobee south)- Feb 16- May 15
            - North and central interior, Gulf coast saltmarsh – April 16 – July 15
        - **Flightless Period (Determines Project Implications)**
            - Everglades (area from Lake Okeechobee south)- May 16- July 15
            - North and central interior, Gulf coast saltmarsh -July 16–September 15
            - If presence is determined, the flightless period will need to be considered for work schedule to minimize/mitigate impacts.

    - **Survey Method- Autonomous Recording Unit (ARU) survey**
        - Contact FWS for technical assistance with survey method
        - Set up within 100m of Action Area
        - Set up for the duration of the breeding season
        - Requires an experienced person to analyze data
    - **Survey Method- Call-response Surveys**
        - Timing of Surveys: Crepuscular Survey Period
            - 30 minutes before sunrise to 3 hours after sunrise OR 3 hours before sunset to 30 minutes after sunset
        - Like avian point counts but using recording to elicit a response from territorial males
        - Repeat visits a minimum of 7 days apart to prevent stressing birds
        - Minute by minute structure of the playback recording used in this protocol, including which calls are used during each minute, is copied below.
            - Additional resources and recordings for this survey method can be found here.

Minute	Description
-0:15-0	15-second preparation period
0-1	passive
1-2	passive
2-3	passive
3-4	passive
4-5	passive
5-6	*kickee-doo*; 15 seconds of playback and 15 second break (2x)
6-7	*churt* and *grr-grr-grr*; 15 seconds of playback and 15 second break (2x)
7-8	break
8-9	*kickee-doo*; *churt* and *grr-grr-grr*; 15 seconds of playback and 15 second break (2x)
9-10	break
10-11	optional; heterospecific calls, black rail calls, or break
11-12	optional; heterospecific calls, black rail calls, or break

Examples of habitat: Dense grasses are suitable- not open water. Suitable habitat within a wetland complex



Wetland complex- **For presence absence survey, the size of the suitable habitat is not necessarily just what occurs in the project area but would also include the contiguous wetland system, even if not all the complex is considered suitable.*