

Forest and Rangeland Ecosystem Science Center

Research Brief for Resource Managers

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Laboratory of Conservation Genetics

Goal: To provide guidance on small population management, species listing, and species recovery to agency and non-governmental partners.

Approach: In collaboration with partners, use molecular tools, population viability modelling, pedigree analyses, and field data to provide perspective on species recovery strategies.

Molecular Tools Used: Mitochondrial DNA, Inter-Simple Sequence Repeat (ISSRs), Random Amplified Polymorphic DNA (RAPDs), and microsatellites.

Examples: Identification of Evolutionary Significant Units, Management Units and/or Distinct Population Segments in Spotted Owls, Southern Torrent Salamanders, Snowy Plovers, Piping Plovers, Puerto Rican Parrots, and Micronesian Kingfishers. Definition of pedigree structure in Guam Rails, Micronesian Kingfishers, and Red-cockaded Woodpeckers. Identification of population-specific markers in Hudsonian Godwits, Semipalmated Plovers, and Semipalmated Sandpipers. Development of translocation/population enhancement strategies for Guam Rails and Red-cockaded Woodpeckers.

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Photo provided by Eric Forsman

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