



Early Detection of Invasive Plant Species Monitoring Plan

Standard Operating Procedure #16: Metadata Development

Version 1.2 (6 June 2017)

Change History

New Version	Revision Date	Author	Changes Made	Justification
1.0	2007	PACN	Developed.	
1.1	6/23/2016	K. Kozar	Updates to general instructions.	To accurately reflect the metadata procedure.
1.2	6/6/2017	A. Ainsworth	Updated for ED plan and added reference to data quality review report.	Developed for EIPS. ED should not include and sensitive species.

Only changes in this specific SOP will be logged here. Version numbers will be incremented by a whole number (e.g., Version 1.3 to Version 2.0) when a change is made that significantly affects requirements or procedures. Version numbers will be incremented by decimals (e.g., Version 1.6 to Version 1.7) when there are minor modifications that do not affect requirements or procedures for publication in the series.

Purpose

This SOP describes the guidelines and process for documenting data collected within Pacific Island Network (PACN) parks as part of the Early Detection of Invasive Species Monitoring Plan (Ainsworth et al. 2017).

Metadata Documentation

Data documentation is a critical step toward ensuring that datasets are usable for their intended purposes well into the future. This involves the development of metadata, which can be defined as structured information about the content, quality, condition and other characteristics of a given data set. Additionally, metadata provide the means to catalog and search among data sets, thus making them available to a broad range of potential data users. Metadata for all PACN monitoring data will conform to Federal Geographic Data Committee (FGDC) guidelines and will contain all components of supporting information such that the data may be confidently manipulated, analyzed and synthesized.

Updated metadata is a required deliverable that should accompany the certified data from each season. For long-term projects such as this one, metadata creation is most time consuming the first time it is developed – after which most information remains static from one year to the next. Metadata records in subsequent years are only updated to reflect changes in contact information and taxonomic conventions, to include recent publications, to update data disposition and quality descriptions, and to describe any changes in collection methods, analysis approaches or quality assurance for the project.

Specific procedures for creating, parsing, and posting the metadata record are found in PACN Metadata Development Guidelines available from the data manager or on the network server (I:\data_mgmt\sop_documents\guidelines_forms\guidelines\PACN_Metadata_Guidelines.docx). The general flow is as follows:

1. After the annual data quality review has been performed and the data are ready for certification, the project lead (or a designee) updates the PACN Metadata Interview Form (I:\data_mgmt\sop_documents\guidelines_forms\PACN_Metadata_Interview_Form.docx).
 - a. The metadata interview form greatly facilitates metadata creation by structuring the required information into a logical arrangement of 15 main questions, many with additional sub-questions.
 - b. The first year, a new copy of the metadata interview form should be downloaded. Otherwise the form from the previous year can be used as a starting point, in which case the Track Changes tool in MS Word should be activated in order to make edits obvious to the person who will be updating the XML record.
 - c. Complete the metadata interview form and maintain it in the project workspace. Much of the interview form can be filled out by cutting and pasting material from other documents (e.g., reports, narrative sections, and SOPs).
 - d. The data manager can help answer questions about the metadata interview form.
2. Deliver the completed interview form to the data manager according to SOP #17 “Product Delivery Specifications and Schedule.”
3. The data manager (or GIS specialist for spatial data) will then extract the information from the interview form and use it to create and update an FGDC- and NPS-compliant metadata record in XML format. Specific guidance for creating the XML record is contained in PACN Metadata Development Guidelines.
4. The data manager will post the record and the certified data to the Data Store, part of the Integrated Resource Management Application Portal (IRMA; <https://irma.nps.gov/Portal>; accessed 6 June 2017), and maintain a local copy of the XML file for subsequent updates.
5. The project lead should update the metadata interview content as changes to the narrative are made, and each year as additional data are accumulated.