

County of San Diego SanBIOS GIS Data Standard User Manual



Quick Start

The SanBIOS database template is available through the [SanBios GIS Data Collection](#) app on the County of San Diego Enterprise system. To download an empty geodatabase for data collection, navigate to the app and find Section 2. Click the yellow download button. The geodatabase will automatically download to your local computer (typically in your Downloads folder). This template includes an empty geodatabase with two feature classes (points and polygons).

The sections below describe the purpose of the SanBIOS data standard, required fields, and instructions for how to complete them. If you have questions, please refer to the contacts listed at the end of this manual.

Abstract

Created in 2009, the SanBIOS database serves as a centralized repository for species observations collected by departments within the County of San Diego's Land Use and Environment Group. By coordinating biological species tracking across departments, the County ensures a complete, standardized dataset that provides high-quality information to environmental scientists, advocacy groups, County departments, and other agencies.

Purpose

Species observations are recorded by County biologists, as well as external agencies and private firms. These records:

- Provide a baseline inventory for the adopted South County MSCP and draft North and East County preserve systems.
- Support placement of permanent survey plots and ongoing monitoring projects.
- Aid in validating species niche models and meeting CEQA requirements.
- Help identify and monitor invasive species.

Note: Observations confirm species *presence* at the time of survey, but not *absence*.

Survey methods vary widely—from structured efforts to incidental observations. SanBIOS is compatible with the California BIOS database ([Biogeographic Information and Observation System \(BIOS\)](#)).

Participating County Departments:

Ag. Weights and Measures
Environmental Health
Parks and Recreation
Public Works, Environmental Services
Planning and Land Use

By adhering to common standards, organizations are more able to share data and determine the value of a dataset. In accordance with County of San Diego's GIS Policy #4, all species observations are to be collected using the SanBIOS standards and template.

SanBIOS Data Standard

The SanBIOS database template contains a geodatabase consisting of two empty feature classes (one for point and one for polygon locations). The attributes featured in this dataset meet the basic requirements of each department, although more information may be collected and tracked outside of this database. The following information **must** be recorded for each observation:

Notes (Text): Enter any relevant details not captured in other fields. Use "No Data" if unknown.

SpID_all (Text w/ Domain): This field provides a drop-down menu with the species ID, scientific (Latin) name, and common name. When the species is not available in the list, choose "Other" (SpID 979) and enter the full species information in the Notes field. To quickly find a species ID, use the search tool in Section 3C to search by scientific name or common name. You can also download the species ID list as an Excel file from the same section.

Observer (Text): The observer field lists the individual name, the department name or the company name associated with the person recording the species observation. It is important to know who to contact if there is a question regarding an observation. Considering this, the name of a department, an agency or consulting firm is the most important, as people and roles change with time. If there is no information to be recorded, or if the value is unknown, a value of "No Data" is required to be entered.

VoucherID (Numeric): The VoucherID, or voucher identification number, is the voucher number assigned by an institution confirming the identification of an individual specimen. If there is no information to be recorded, or if the value is unknown, a value of "-99" is required to be entered.

SiteName (Text): This field is used to indicate the name of an area where the survey is conducted. This can include park names, preserve names, or a name of a general area. Due to the nature of this field, variations of a single name can often be found. For example, "Palomar Mountain", "Palomar Mtn", and "Mt Palomar" can all be listed to represent the same area. **Acronyms and abbreviations are discouraged** from providing useful information. If there is no information to be recorded, a value of "No Data" must be entered.

Point_X and Point_Y (Numeric): Due to the nature of place names, and the fact they vary, the only way to truly name an observation's location is to record the X,Y location of the feature. This does not have to be recorded in the field, however. It can simply be added by running "Add X,Y Coordinates" tool in ArcGIS. If this is not an available option, the field can be left empty and will be populated before being entered into the final SanBIOS database by the department steward. For the polygon feature class, the coordinate of the polygon centroid is preferred. The coordinate system for the geodatabase and all datasets is State Plane California Zone 6, NAD83.

ObsDate (Date): The date of the observation **must** be recorded. Due to seasonal variation in species occurrence and range, as well as the importance (in animal species) of discerning breeding individuals from non-breeding, it is important to have a precise understanding when an observation was made. The date must be expressed as a two-digit month, day, and four-digit year. Example: mm/dd/yyyy. If the specific day of the month is missing or not recorded, the month and year will suffice but records with anything less than a month and year will be excluded from the database.

CountofID (Numeric): The CountofID, or count of individuals, indicates the number of individuals present or occurring at the time of the observation. For example, while observing *Bufo californicus*, a CountofID of 2 would indicate that two species were observed in one location. Some observations have a large quantity of individuals or an extent and should be captured as a polygon instead of a point location. In cases where the number is known as a range, the minimum number of individuals will be used to populate the field. This field requires a value of 1 or more.

ProtocolNa (Text): Values consist of names referring to specific protocols followed during a survey. For more information, see the CDFG website [CDFG - Under Maintenance Page](#). If there is no information to be recorded, or if the value is unknown, a value of "No Data" is required to be entered.

ProtocolDe (Text): Brief descriptions of protocol followed or titles of published references for the specific protocol named. If there is no information to be recorded, or if the value is unknown, a value of "No Data" is required to be entered.

SiteNotes (Text): While site names are recorded, sometimes there are more detailed site descriptions that may need to be recorded. A measured distance, an address, or a more specific description of where within the site the species occurred are all good examples of information collected in this field. If there is no information to be recorded, a value of "No Data" is required to be entered.

DBEditDate (Date): This is the recorded date when the spatial data is created or modified.

SrcDocName (Text): If an observation is linked to a report, or comes from a historic document, the title or reference is documented here. If there is no information to be recorded, a value of "No Data" is required to be entered.

DBSteward (Text): The database steward is the name of the individual who is assembling and editing the spatial data.

DeptName_D (Text w/ Domain): Department responsible for the observation. Use "-99" if unknown.

LifeForm_D (Text w/ Domain): Differentiates the observations into plant or animal categories. If there is no information to be recorded, or if the value is unknown, a value of "-99" is required to be entered.

OriginDesc_D (Text w/ Domain): It refers to the origin of the spatial data, such as a GPS unit or digitized points from a field map. If there is no information to be recorded, or if the value is unknown, a value of "-99" is required.

PName_D (Text w/ Domain): The value can represent either the accuracy of an individual point location, the extent of specific polygons representing an individual's range or habitat, or the extent of groups of individuals or trapping grids. If there is no information to be recorded, or if the value is unknown, a value of "-99" is required.

SiteQualDe_D (Text w/ Domain): It provides the observer with a subjective ranking of population viability at the observation site, specific to the species observed. The ranking is based on the health and viability (size and demographics) of the population, the condition and quality of the general habitat supporting the species, past and existing disturbance, and the potential for

future threats. If there is no information to be recorded, or if the value is unknown, a value of “-99” should be selected.

source_name_D (Text w/ Domain): It refers to the source of the observation, such as a historical document or a field observation. If there is no information to be recorded, or if the value is unknown, a value of “-99” is required.

Contact Information

As this dataset is available to the public, it is expected that inconsistencies or errors in the data will be found. Questions or concerns regarding the SanBIOS dataset or the County’s standard and templates, as well as information regarding specific errors in the database can be directed at one of the following:

Paula Birdwell, Sr. GIS Analyst
County of San Diego
paula.birdwell@sdcounty.ca.gov

Melanie Casey, GIS Coordinator
County of San Diego, Dept of Planning and Land Use
melanie.casey@sdcounty.ca.gov

Jason Batchelor, GIS Manager
County of San Diego, Land Use and Environment Group
jason.batchelor@sdcounty.ca.gov