

Yellow-billed Loon Geodatabase data submission guidelines

Individuals are encouraged to submit information on yellow-billed loon observations, systematic surveys for loons, and incidental observations. All data submitted will be reformatted to conform to the database structure outlined in the data dictionary.

Yellow-billed loon data can be submitted to the mailing or email address listed below. We recommend that when possible, data be submitted in digital format such as text files, Excel Spreadsheets, Access databases, SQLite, or ESRI file geodatabases. We have prepared a spreadsheet and two template databases that we hope will facilitate data submission. Use of a template is optional, but encouraged. The [spreadsheet](#) and template [databases](#) are available from arcticlcc.org.

Please contact Jennifer Jenkins if you have any questions about data submission.

Data Manager
U.S. Fish and Wildlife Service, Office of Science Applications
Arctic Landscape Conservation Cooperative
101 12th Ave, Fairbanks, Alaska 99701
907 455 1847
data@arcticlcc.org

Yellow-billed loon observation data:

We welcome yellow-billed loon observations associated with systematic surveys or incidental observations. When possible, please provide the following information:

- Observation ID: Each observation should have a unique identifier. The format for this identifier is flexible and can be determined by the contributor.
- Survey ID: Name or ID of the survey, if any, associated with the observation. An observation is considered to be associated with a survey only if yellow-billed loons are one of the targeted species **or** survey methods are such that there is a reasonable probability that the presence of loons would be detected.
- Incidental ID: If the observation is not associated with a survey, it will be classified as an Incidental Observation. The format for this identifier is flexible and can be determined by the contributor.
- Year: Year of observation (YYYY).
- Date and time of the observation: Preferably, date and time would be in separate fields.
- Location of observation: Location can be represented by latitude and longitude values (in decimal degrees), features within a shapefile, Esri feature class, or maps/base imagery that depict loon sightings. Please include datum (NAD27, NAD83, or WGS84) and projection information when appropriate.
- Adult count: Number of adult bird(s) seen.
- Nest: Number of nests located.
- Young count: Number of young bird(s) seen.
- Was a brood seen? Yes or No.
- Total number of birds: Total number of adult and young bird(s) seen for a given observation.
- Flock: Number of flocks seen.
- Flying: Were the birds flying: Yes or No.
- Were the bird(s) seen on a transect: Yes or No.
- Habitat: Habitat type where bird(s) were seen.
- Behavior: Brief summary of behavior.
- Notes: Include any notes or comments regarding the survey that data users would find helpful.

- Any 'read-me', metadata files, or companion information associated with the observations.

Information about surveys for yellow-billed loons:

We ask that you include information about surveys where yellow-billed loons are one of the targeted species **or** surveys where the methods are such that there is a reasonable probability that the presence of loons would be detected. Include surveys where loons were searched for, but not detected. When possible, please provide the following information:

- Area covered by the survey: The geographic area covered by the survey can be represented by shapefiles, ESRI feature classes, or maps/base imagery that depict survey boundaries. Please include datum and projection information when appropriate.
- Survey ID: Each survey should have a unique identifier. The format for the identifier is flexible and can be determined by the contributor.
- Type: Describes the type. Suggested values are: aerial or ground
- Platform: Describes the platform used. Suggested values are: fixed-wing, helicopter, non-motorized, motorized.
- Start: Start date of the survey.
- End: End date of the survey. May be the same as the start date.
- Purpose: The biological purpose of the survey. The survey may fall within a discrete biological period or can span multiple biological periods. Suggested values are: pre-nesting (PN), nesting (NE), brood-rearing (BR), breeding pair (BP), and molting (MO), or spans multiple time periods (SP).
- Reference: Name of the publication, if any, that summarizes the survey information.
- Coverage: Describes how thoroughly an area was searched. Suggested values are: sampled, census, incomplete, or unknown.
- Mapping method: Method used to map the survey boundary. Examples include topographic maps, aerial photo, satellite image, or GPS.
- Indicator of accuracy: Scale of map or base imagery (1:250,000, 1:63,360, 1:500) or an estimated precision of GPS coordinates (± 1 meter, ± 10 meters, ± 100 meters, or ± 1 km).
- Total number of yellow-billed loon observations: Total number of observation records for a given survey.
- Adults: Total number of adult yellow-billed loons seen during the survey.
- Young: Total number of young yellow-billed loons seen during the survey.
- Nests: Total number of yellow-billed loon nests located during the survey.
- Broods: Total number of yellow-billed loon broods located during the survey.
- Contact: Name of the individual or organization who may answer questions regarding the survey. When possible, provided email address and phone numbers.
- Notes: Include any notes or comments regarding the survey that data users might find helpful.
- Any 'read-me', metadata files, or companion information associated with the survey.

Information related to incidental observations:

Any observation that occurs outside of a survey is considered to be an incidental observation. The information captured in the 'incidental observations' table is similar to what is recorded for surveys. We hope that researchers will provide as much information as possible regarding the observation.

When possible, include the following information:

- Incidental ID: Each record should have a unique identifier. The format for this identifier is flexible and can be determined by the contributor.

Yellow-billed Loon Geodatabase data submission guidelines

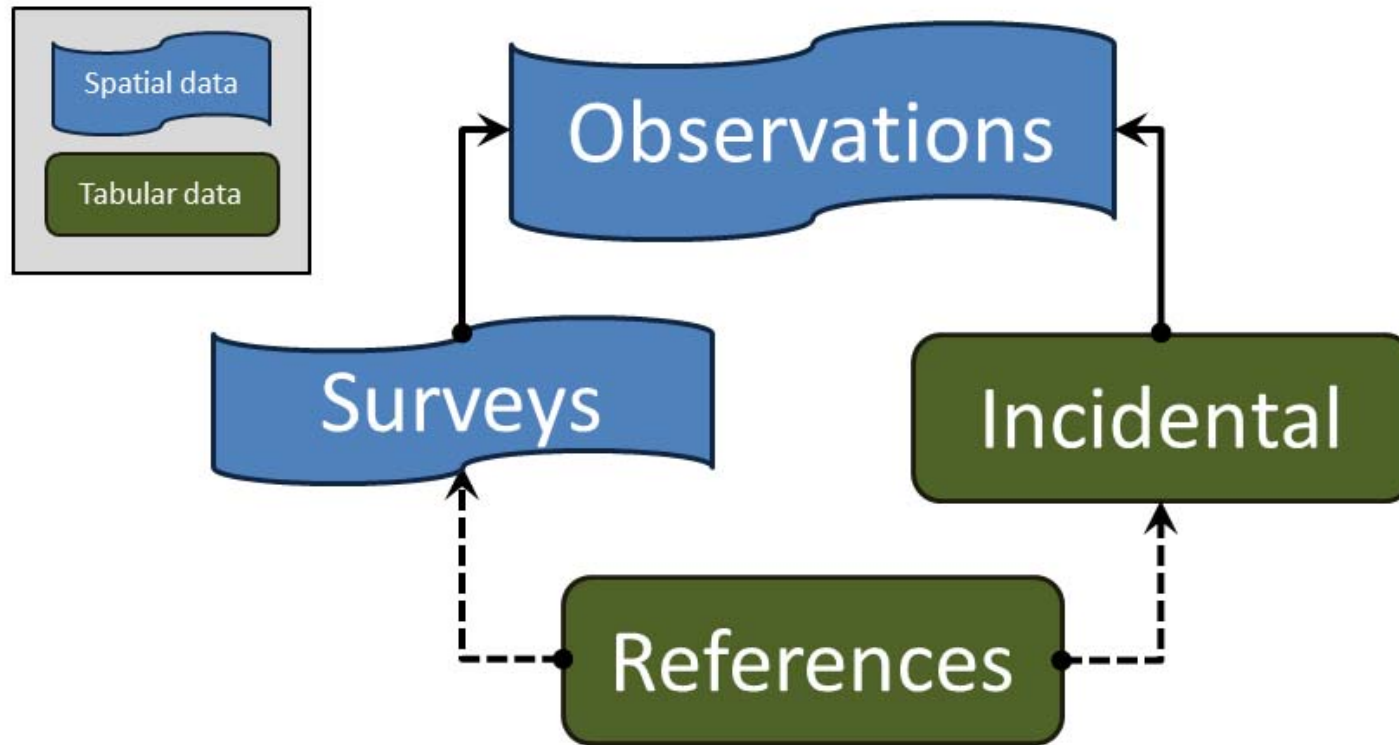
- **Type:** Describes the type. Suggested values are: aerial or ground
- **Platform:** Describes the platform used. Suggested values are: fixed-wing, helicopter, non-motorized, motorized.
- **Mapping method:** Method used to map the observation. Examples include topographic maps, aerial photo, satellite image, or GPS.
- **Indicator of accuracy:** Scale of map or base imagery (1:250,000, 1:63,360, 1:500) or an estimated precision of GPS coordinates (± 1 meter, ± 10 meters, ± 100 meters, or ± 1 km).
- **Reference:** Publication, if any, that summarizes the information
- **Contact:** Name of individual or organization who may answer questions regarding the incidental observations. When possible, provided email address and phone numbers.
- **Notes:** Include any notes or comments regarding the incidental observation that users might find helpful.
- Any 'read-me', metadata files, or companion information that may be associated with the incidental observation.

References information:

Please provide details about any references (publications, personal communications) where the user can find additional information about loon observations and surveys. When possible, include the following information:

- **Author:** Author(s) of a report.
- **Year:** Year reference was published (YYYY).
- **Title:** Title of the reference.
- **Publication name:** Name of the publication and name of publisher (if applicable).
- **Volume:** Volume (if applicable)
- **Pages:** Page numbers in a publication or the number of pages in a report.
- **Type:** Type of publication. Suggested values are: Chapter, Conference proceedings, Dissertation/thesis, Draft report, Journal article, or Report.
- **Was the reference published?** Yes or No.
- **Years of study:** The year(s) of study reported in the reference.
- **Website where the reference can be found.**
- **Agency or organization responsible for collecting the data presented in the reference.**
- **Agency or organization providing support (e.g., funding) for data collection.**
- **Contact:** Point of contact for the reference. When possible, provided email address and phone numbers.
- **Notes:** Include any notes or comments that data users might find helpful.

Simplified Schema for the Yellow-billed Loon Geodatabase



Each **Observation** is assigned an ID that is used to link it to either a **Survey** or an **Incidental** record. Each **Reference** is assigned an ID that is used to link it to Surveys and/or Incidental records. Observations are considered to have been derived from a survey if both of the following conditions are met 1) there was a search area with reasonably well-defined boundaries, and 2) loons were among the taxa specifically targeted by the survey. All observations that do not meet these criteria are treated as incidental observations.

Observation feature class attributes: (observations):

Field name:	Data type:	Description:
OBSERV_ID	Text	Required. Unique identifier for each observation, assigned when data are aggregated into the database. This field serves as the primary key for the Observation attributes table. The 'OBSERV_ID' will be a combination of contributor (limited to a maximum of 6 characters) <u>underscore</u> year (YYYY) <u>underscore</u> observation # (sequential). Examples: ABR_2005_001 and FWS_2005_001.
SURVEY_ID	Text	Required. Unique identifier for each survey, assigned when data are aggregated into the database. A survey will be assigned a 'SURVEY_ID' only if loons are one of the targeted species or survey methods are such that there is a reasonable probability that the presence of loons would be detected. The 'SURVEY_ID' will be a combination of contributor (limited to a maximum of 6 characters) <u>underscore</u> year (YYYY) <u>underscore</u> purpose code (PN, NE, BR, BP, MO; <i>see Survey attributes table for purpose code definitions</i>) <u>underscore</u> survey # (sequential). Examples: ABR_2005_BP_001, and FWS_2005_PN_001.
Incd_ID	Text	Required. Unique identifier for incidental observations, assigned when data are aggregated into the database. Any observation that occurs outside of surveys that targeted loons will be assigned an incidental ID (Incd_ID). The 'Incd_ID' will be a combination of 'Incd' <u>underscore</u> year (YYYY) <u>underscore</u> incidental # (sequential). Examples: Incd_2004_999 and Incd_2005_002. Incidental observations will also be assigned the non-unique value 'Incidental' in the 'SURVEY_ID' field.
Species	Text	Required. Species. Entries will be limited to YBLO.
YEAR	Number	Required. Year of observation (YYYY).
Date	Date/Time	Date of observation (MM/DD/YYYY).
Time_	Integer	Time of observation (HHMM).
LatDD83	Number	Latitude, in decimal degrees.
LongDD83	Number	Longitude, in decimal degrees.
Pairs	Number	Number of pairs seen.
AD_CNT	Number	Number of adults seen.
YG_CNT	Number	Number of young seen.
Brood	Text	Describes if a brood was seen (Yes or No).
TOT_CNT	Number	Number of adults and young seen.
Flock	Number	Number of flocks seen.
Nest	Number	Number of nests seen; 'unknown' will be a subset of zero.
Flying	Text	Were the bird(s) flying: Y (yes) or N (no).
On_Transect	Text	Were the bird(s) seen on transect: Y (yes) or N (no).
Habitat	Text	Wetland habitat type where bird(s) were observed.
Behavior	Text	Brief summary of behavior and/or breeding status.
Notes	Memo	Additional information about the observation.

Yellow-billed Loon Geodatabase

Field name:	Data type:	Description:
Comments	Memo	Any comments/notes made by the data steward of the YBLO GDB.
R_Code	Text	Original identifier within the researcher's database.
Datum_Trans	Text	Datum transformation used on these data, if any.

Incidental observations table: (incidental_attributes)

Field name:	Data type:	Description:
Incd_ID	Text	Required. Unique identifier for incidental observations, assigned when data are aggregated into the database. Any observation that occurs outside of surveys that targeted loons will be assigned an incidental ID (Incd_ID). The 'Incd_ID' will be a combination of 'Incd' <u>underscore</u> year (YYYY) <u>underscore</u> incidental # (sequential). Examples: Incd_2004_999, Incd_2005_001, and Incd_2005_2005.
Location	Text	General description of where the observation occurred. For example, Barrow Triangle, Alpine, Prudhoe Bay.
Type	Text	Describes the type. Suggested values are: aerial or ground.
Platform	Text	Describes the platform used. Suggested values are: fixed-wing, helicopter, non-motorized, motorized.
Map_Method	Text	Method used to map the observation area. Suggested values are: topo, aerial photo, satellite image, GPS, or a combination of these.
Error_Ind	Text	Indicator of accuracy. May be scale of map or photo (example; 1:250,000, 1:63,360, 1"=500') or precision of GPS coordinates.
Ref_ID	Text	Identifies the record, within the 'references_information' table that is associated with an incidental observation.
Reference	Text	Name of the reference where information about the observation can be found.
Contact	Text	Point of contact for the observation.
Email	Text	Email address for point of contact.
Phone	Text	Phone number for point of contact
Notes	Memo	Additional information regarding the incidental observation.
Comments	Memo	Any comments/notes made by the data steward of the YBLO GDB.

Survey polygon feature class: (survey_poly)

Field name:	Data type:	Description:
Survey_ID	Text	Required. Unique identifier for each survey, assigned when data are aggregated into the database. A survey will be assigned a 'SURVEY_ID' only if loons are one of the targeted species <i>or</i> survey methods are such that there is a reasonable probability that the presence of loons would be detected. The 'SURVEY_ID' will be a combination of contributor (limited to a maximum of 6 characters) <u>underscore</u> year (YYYY) <u>underscore</u> purpose code (PN, NE, BR, BP, MO; see 'Purpose' for code definitions) <u>underscore</u> survey # (sequential). Examples: ABR_2005_BP_001, FWS_2005_PN_001.
Survey_Loc	Text	General description of the survey location. For example, Barrow Triangle, Alpine, Prudhoe Bay.
Survey_Name	Text	Name of the survey. For example, Eider breeding population survey Arctic Coastal Plain.
Ref_ID	Number	Identifies the record, within the 'references_information' table that is associated with a survey.
Start_Date	Date/Time	Start date of survey (MM/DD/YYYY).
End_Date	Date/Time	End date of survey (MM/DD/YYYY).
Start_Year	Number	Year survey started (YYYY).
End_Year	Number	Year survey ended (YYYY). Only those surveys that start in December of one year and end in January of the next year will have different start and end years.
Type	Text	Describes the type of survey. Suggested values are: aerial or ground
Platform	Text	Describes the platform used for the survey. Suggested values are: fixed-wing, helicopter, non-motorized, motorized.
Purpose	Text	Biological purpose of the survey. Suggested values are: pre-nesting (PN), nesting (NE), brood-rearing (BR), breeding pair (BP), and molting (MO), or spans multiple time periods, such as brood-rearing and molting (SP).
Coverage	Text	Describes how thoroughly an area was searched. Suggested values are: sample, census, incomplete, or unknown.
Replicate	Number	Replicate number, if applicable.
Map_Mthd	Text	Method used to map the survey area, if known. Suggested values are: topo, aerial photo, satellite image, GPS, or a combination of these.
Error_Ind	Text	Indicator of accuracy. May be scale of map or photo (for example; 1:250,000, 1:63,360, 1"=500') or precision of GPS coordinates.
Null_Suy	Text	If YBLOs were NOT detected, this field contains a Y. If YBLOs were detected, this field contains a N.
YBLO_tot	Number	Total number of YBLOs seen during the survey.
YBLO_adult	Number	Total number of adult YBLOs seen during the survey.
YBLO_yng	Number	Total number of young YBLOs seen during the survey.
YBLO_nest	Number	Total number of YBLO nests seen during the survey.
YBLO_broods	Number	Total number of YBLO broods seen during the survey.
DatumTrans	Text	Datum transformation used on these data, if any.
Notes	Memo	Additional information about the survey.

Field name:	Data type:	Description:
Comments	Memo	Any comments/notes made by the data steward of the YBLO GDB.

Reference information table: (reference_information)

Field name:	Data type:	Description:
Ref_ID	Integer	Required. Unique identifier for each record.
Species	Text	Which loon species are referenced by the report? YBLO
Author	Text	Author(s) of a report.
Publication_Year	Number	Year report was published (YYYY).
Title	Text	Title of the report.
Publication_Name	Text	Name of the journal.
Volume	Text	Volume of publication.
Pages	Text	Pages number in a publication OR the number pages in a report.
Source_Type	Text	Brief description of the reference. Suggested values are: Chapter, Conference proceedings, Dissertation/thesis, Draft report, Journal article, or Report.
Published	Text	Was the reference published? Y (yes) or N (no)
Publisher	Text	Name of the publisher.
Years_of_Study	Text	Year or years of study. Example, 2000, 2010-2012.
Website	Text	Web address where a copy of the reference can be found.
Agency	Text	Agency or organization responsible for collecting the data presented in the reference.
Client	Text	Agency or organization providing support for collection of the data presented in the reference.
Contact	Text	Point of contact for the reference.
Email	Text	Email address for point of contact.
Phone	Text	Phone number for point of contact.
Comments	Memo	Any comments/notes made by the data steward of the YBLO GDB