



# Major Objectives

- Better management of observation data from diverse and geographically widespread sources
- Easier sharing of data internal to PCA and with NatureServe Network
- Encourage adoption by providing an easy to use and functional tool

Standards – Handheld – **Kestrel** – Biotics – Web Services – NatureServe Explorer – Landscape - Vista

## Data Collection and Recording

Web-based data entry

On-line mapping via  
ArcGIS Server

Basic reporting

Export GML, CSV

Secure access

Localizable

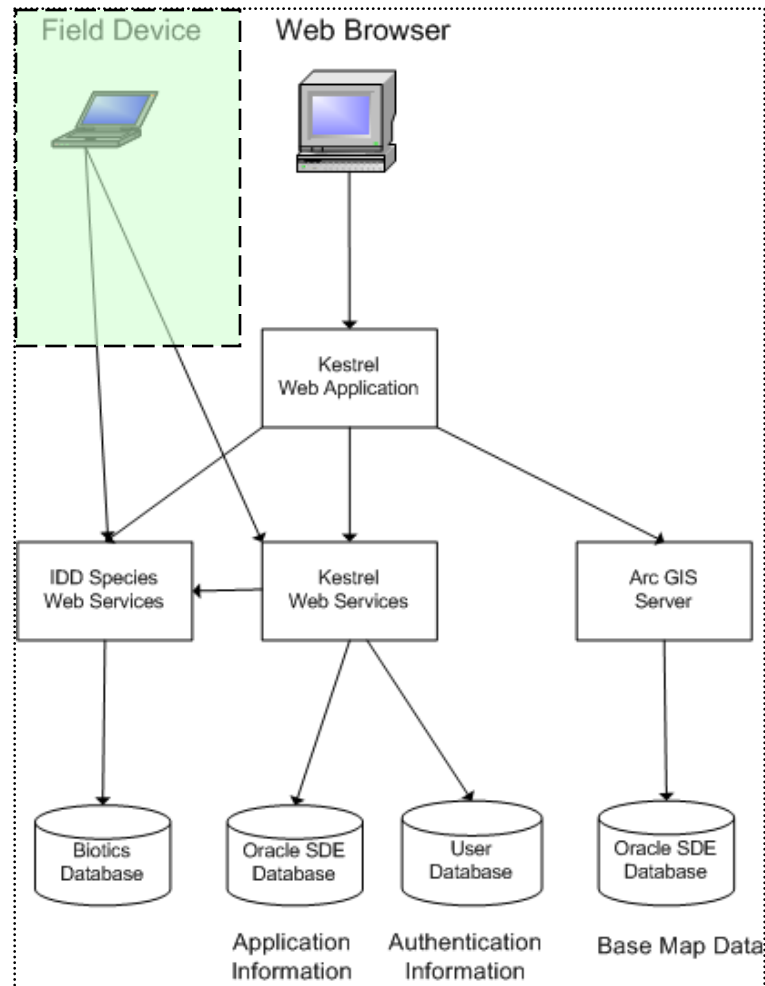
*Import from Excel  
(load and append)*

The image displays three overlapping screenshots of the Observations DMS web application. The top-left screenshot shows the main 'Observations DMS' interface with a sidebar menu, a search bar, and a table of observations. The top-right screenshot shows the 'Edit Location - Eva Lake' page, which includes a map layer selector and a map view. The bottom-center screenshot shows the 'User Account Information' page, which contains fields for user details and a 'Save' button.

Action	Common Name
Actions	Columbia Spotted Frog
Actions	Columbia Spotted Frog
Actions	Northern Flying Squirrel
Actions	Northern Flying Squirrel
Actions	Columbia Spotted Frog
Actions	Wood Frog
Actions	Leopard Frog

Property	Value
Survey	whitney
Species	Northern Flying Squirrel
Observation Date	6/21/06
Location	Eva Lake
Primary Observer	Water
Sensitive	False
Identification Confidence	
Identification Source	
Source (used in Identification Source)	
Min Elevation (meters)	
Max Elevation (meters)	
Mapping Accuracy	
Location Confidence	
Directions	
GPS Accuracy	
GPS Mode	
Evidence Type	
Migratory Use	
Count, Lifespan	
Habitat Description	
Template	

# Observation Tool Architecture





# Concept: Template Authoring Tool and Attribute Library

- Premise: no one wants to reinvent the wheel
- Shared Community Resource
  - Attributes and Attribute Collections
  - UI for defining and editing attributes and collections
  - UI for search and browse of library holdings
- Benefits
  - Saves time: reuse over reinvention
  - Reuse directly enables aggregation and downstream analysis



# Authored \Shared Templates

- Support core and extended observation standards through use of authored observation *templates*
  - Must use:
    - Core observation attributes
      - » What, where, when, who
  - Can use:
    - Standard set of attributes - from recognized observation standards
    - Custom attributes (specific to a survey, individual, organization, etc.)
  - Can support establish protocol, e.g.
    - Heritage Methodology, Invasive species, CI Rapid Assessment, Citizen Bird Survey
  - Or be constructed for adhoc survey
  - Signed by author/organization
  - Enables tracking of usage and subsequent modifications



# Outline

- System Level security
- Survey Level security
- Survey management
- Observation Management
- Reporting
- Help / Technical Support
- Benefits
- Links



# System Level security

Kestrel: Edit User Account - Windows Internet Explorer  
https://kestrel.natureserve.org/kestrel/Pages/User/UserEdit.aspx

Canada  
Home  
My Profile  
Surveys  
Observations  
Reports  
People  
Lists  
Help  
Technical Support  
About Kestrel  
Contact Us

**Observations DMS**  
NatureServe

**Edit User Account** [Change Password](#) [Log Out](#) ewen eberhardt

### User Account Information

Fields marked ♦ require an entry.

- ♦ Username: ewen eberhardt
- ♦ First Name: Ewen
- ♦ Last Name: Eberhardt
- ♦ Email Address: ewen.eberhardt@pc.gc.ca

Active:

♦ Roles: Administrator (selected), Contributor, User

Password:



# System Level Security

- System Administrator
  - Can add users to the system
- System Contributor
  - Permission to add new surveys to the system
- System User
  - Can 'use' the system (ie. add observations, view data)
- \*Note System Level User Preferences (e.g. Language)

# Survey Level security

The screenshot shows a web browser window titled "Kestrel: Edit Survey - Windows Internet Explorer". The address bar displays the URL "https://kestrel.natureserve.org/kestrel/Pages/Survey/SurveyEdit.aspx". The page header includes the "Canada" logo on the left and the "Observations DMS" title in large yellow letters on the right, with the "NatureServe" logo below it. A navigation menu on the left lists: Home, My Profile, Surveys, Observations, Reports, People, Lists, Help, Technical Support, About Kestrel, and Contact Us. The main content area is titled "Survey Information" and contains the following fields:

- Survey Name:** Parks Canada Test Survey
- Description:** This is a 'sandbox' for various people to 'kick the tires' on kestrel. Ewen Eberhardt is the owner and others are contributors to this survey (not to kestrel). Everyone will have sensitive
- Survey Owner:** Eberhardt, Ewen
- Observation Template:** NatureServe Observation Standard

Below these fields is the "Authorized Users" section, which includes a list of users: Allen, Dawn; Allen, Martha; Ashley, Paul; Austin, Deborah; and Ayles, Paul. To the right of this list are controls for "Roles For Selected User", including radio buttons for Administrator, Contributor, and Viewer, and a checked checkbox for "Access Sensitive Observations". At the bottom of the form are three buttons: "Save & Close", "Cancel", and "Delete".



# Survey Level Security

- Survey Administrator
  - Can add users to a survey
- Survey Contributor
  - Can add data to the survey
- Survey Viewer
  - Can view data
  
- Note: access to sensitive data

# Survey management

- Create a new survey based on an existing template
- Record metadata about the survey
- Survey Owner
- Survey User access
- Data Sharing (CDC/HP)
- Config Survey (lists)

The screenshot shows a web browser window titled "Kestrel: Edit Survey - Windows Internet Explorer". The address bar displays the URL "https://kestrel.natureserve.org/kestrel/Pages/Survey/SurveyEdit.aspx". The page header includes the "Observations DMS" logo and the "NatureServe" logo. The user is logged in as "ewen eberhardt". The main content area is titled "Survey Information" and contains the following fields:

- Survey Name:** A text input field with a red asterisk indicating it is required.
- Description:** A large text area for entering survey details.
- Survey Owner:** A dropdown menu with the text "Select an Item".
- Observation Template:** A dropdown menu currently set to "Elasmobranch Observation".
- Authorized Users:** A list box containing the name "Eberhardt, Ewen".
- Roles For Selected User:** A list of roles with radio buttons: "Administrator" (selected), "Contributor", and "Viewer". There is also a checked checkbox for "Access Sensitive Observations".

At the bottom of the form are "Save & Close" and "Cancel" buttons. A small note states "Fields marked \* require an entry."

# Observation Management

- Data Entry one by one or bulk upload
- Point or Polygon
- Data Export (CSV, GML)

Kestrel: Edit Observation - Windows Internet Explorer

https://kestrel.natureserve.org/kestrel/Pages/Observation/ObsEdit.aspx

Kestrel: Edit Observation

Canada

NatureServe

Home  
My Profile  
Surveys  
Observations  
Reports  
People  
Lists  
Help  
Technical Support  
About Kestrel  
Contact Us

Edit Observation [Change Password](#) [Log Out](#) ewen eberhardt

### Observation Information

Fields marked \* require an entry.

Template: NatureServe Observation Standard  
Survey: Parks Canada Test Survey

\*Species

\*Observation Date

\*Location

\*Primary Observer

Identification Confidence

Identification Source

Name Used in Identification Source

Min Elevation (meters)

Max Elevation (meters)

Location Accuracy (meters)

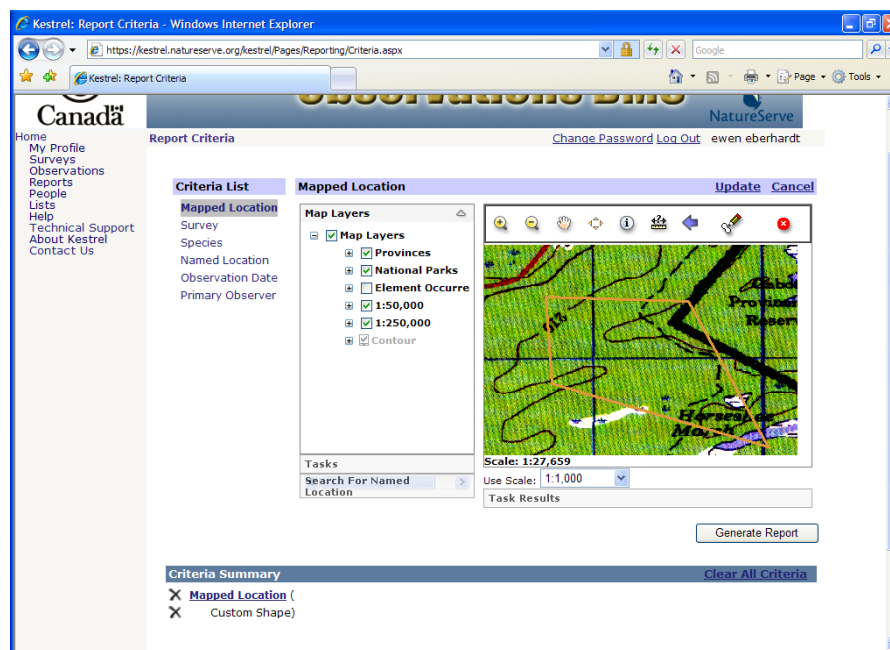
Location Confidence (range)

Directions

Su	Mo	Tu	We	Th	Fr	Sa
29	30	31	1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	1	2
3	4	5	6	7	8	9

# Reporting

- Use Criteria (name, location including a park boundary, species, observer)
- Export (various other areas) to Excel or ESRI





# Benefits

- Query many across many surveys for information
- Web based GIS
- Secure
- Data sharing
- Internal / External
- Linked to standardized updated Taxonomy via web services – improved data quality