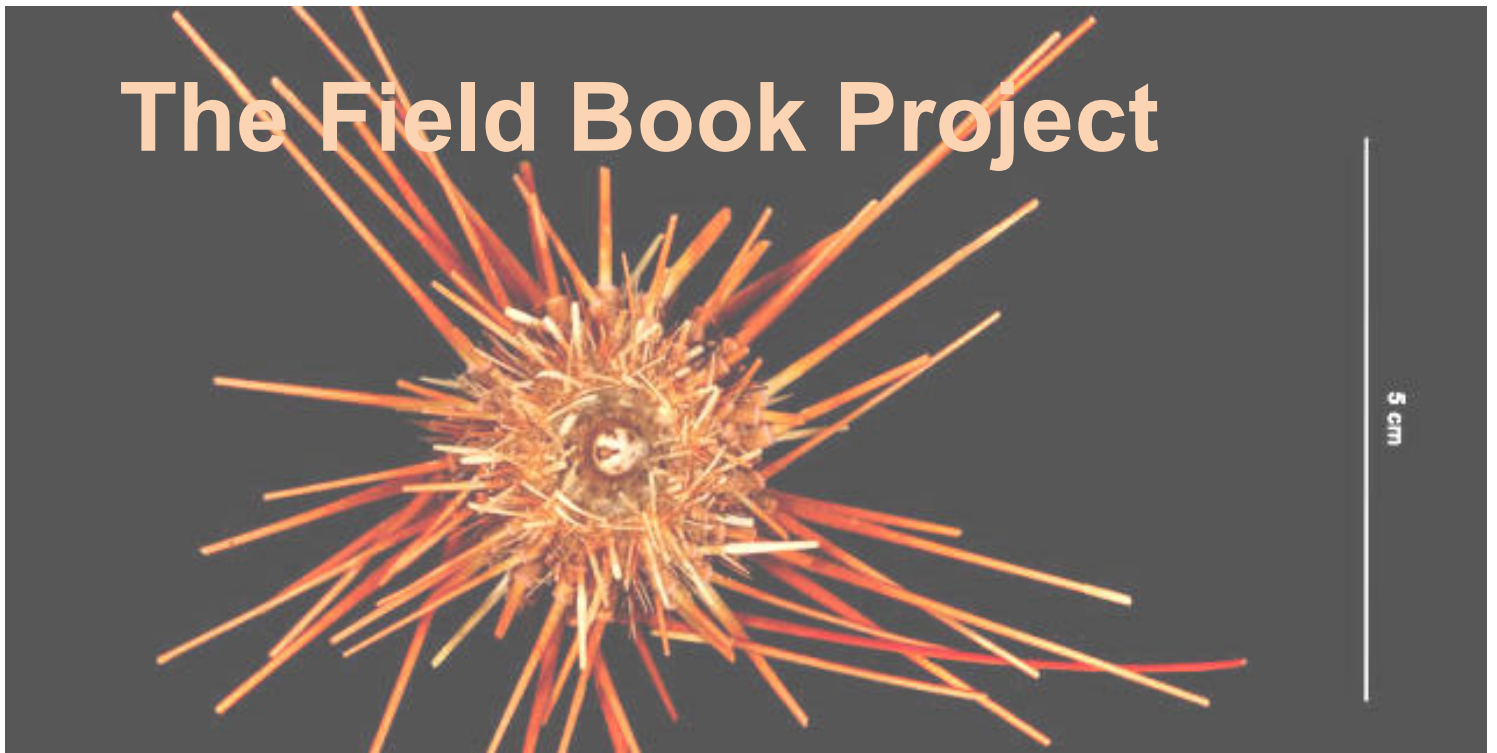


# The Field Book Project



## **What: Demonstration of the Field Book Registry Prototype**

**When: Friday, April 1, 1pm - 2pm**

**Where: SIL Conference Room CE-107 & 108**

This session will provide an opportunity to see the prototype cataloging system.

This presentation will be followed by a discussion with you. Your comments, questions, and/or concerns will help us develop tools that will work for your field book description needs.

Contact: Sonoe Nakasone [nakasones@si.edu](mailto:nakasones@si.edu)

The Field Book Project is a joint initiative of the Smithsonian Institution Archives and National Museum of Natural History to locate, describe and provide online access to field books documenting biodiversity research.

# The Field Book Project & the Division of Mammals

Did you know the Field Book Project is cataloging field books in your department? What does this mean for you? Join us for a brief presentation followed by a discussion.

The Field Book Project is a joint initiative of the Smithsonian Institution Archives and National Museum of Natural History to locate, describe and provide online access to field books documenting biodiversity research. **Your comments, questions, and/or concerns** will help us develop an effective resource for your research needs.

**June 18, 12 – 1pm**  
**Carolyn Rose Room, E 337**

Again, your thoughts and feedback are integral to this project. We look forward to seeing you at this event.

Sincerely,

**The Field Book Project**

Official website:

<http://www.mnh.si.edu/rc/fieldbooks/>

Follow our blog:

<http://nmnh.typepad.com/fieldbooks/mammals/>



*20 petites cornes -*  
*Car. inf. long.*  
*2 1/2 p. tongue and a 2 dents*  
*recurve en bas, c'est en - part.*

# The Field Book Project & The Department of Entomology

Did you know the Field Book Project is cataloging field books in your department? What does this mean for you? Join us for a brief presentation followed by a discussion.

The Field Book Project is a joint initiative of the Smithsonian Institution Archives and National Museum of Natural History to locate, describe and provide online access to field books documenting biodiversity research. **Your comments, questions, and/or concerns** will help us develop an effective resource for your research needs.

**When: August 6, 2012, 12 - 1pm**

**Where: Carolyn Rose Room, 337 (Main Building)**

Again, your thoughts and feedback are integral to this project. We look forward to seeing you at this event.

Sincerely,

**The Field Book Project**

Official website:

<http://www.mnh.si.edu/rc/fieldbooks/>

Follow our blog:

<http://nmnh.typepad.com/fieldbooks/entomology>



Dick collecting dung beetles.



# The Field Book Project & the Division of Birds

Did you know the Field Book Project is cataloging field books in your department? What does this mean for you? Join us for a brief presentation followed by a discussion.

The Field Book Project is a joint initiative of the Smithsonian Institution Archives and National Museum of Natural History to locate, describe and provide online access to field books documenting biodiversity research. **Your comments, questions, and/or concerns** will help us develop an effective resource for your research needs.

**When: Tuesday, June 5, 12 pm - 1 pm**

**Where: Carolyn Rose Room, E 337**

Again, your thoughts and feedback are integral to this project. We look forward to seeing you at this event.

Sincerely,

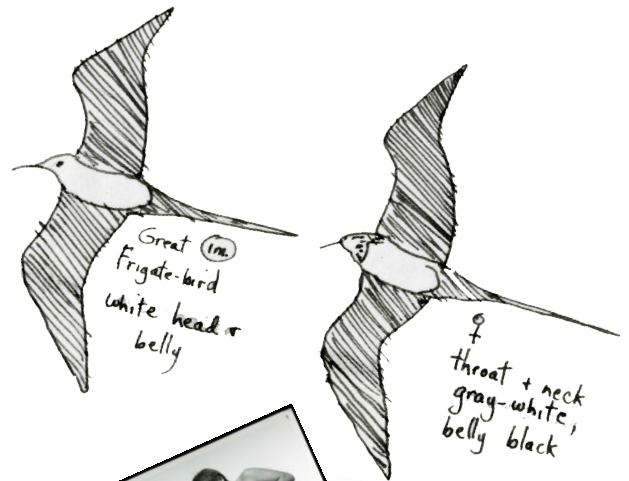
**The Field Book Project**

Official website:

<http://www.mnh.si.edu/rc/fieldbooks/>

Follow our blog:

<http://nmnh.typepad.com/fieldbooks/birds/>





Juncus.

We have enough *J. tenuis* ! But watch for other species. If one has the general appearance of *J. tenuis* and the ligules are thin, white and 1 mm. long or more it will be *tenuis* but if the ligules have no appreciable length, they are thick or thin, get them. It would be well to get some more material of the flat leaved and the hollow septate groups.

## Field Book Project & Smithsonian Institution Library, NMNH

Lesley Parilla, Project Cataloger, will discuss the types of content included in records, with a focus on Encoded Archival Context (EAC) records used to describe persons, organizations, and expeditions. She will demonstrate how the EAC records relate to collection and item records from the Field Book Registry, and provide search tips for finding field book records and page scans in Collections Search.

The presentation will be followed by a discussion session. We look forward to your questions and feedback.

**Thursday, May 23, 2013**  
**12– 1 pm**  
**NMNH Library training rooms,**  
**CE107, 108**

The Field Book Project is a joint initiative of the Smithsonian Institution Archives and National Museum of Natural History to locate, describe and provide online access to field books documenting biodiversity research.

**Website:** <http://www.mnh.si.edu/rc/fieldbooks>

**Blog:** <http://nmnh.typepad.com/fieldbooks>

**Twitter:** @FieldBookProj





# The Field Book Project

## Guide to locating field book records on Collections Search Center

The following search parameters will limit results to:

### Field Book Registry records:

Use keyword search "unit\_code:FBR"

OR

Select Cataloging Record Source "Field Book Registry"

### Field book items:

- Cataloging Record Source: "Field Book Registry"
- Type "field notes"

### Field book records that document botany:

- Cataloging Record Source "Field Book Registry"
- Type "field notes"
- Topic "Plants" (search term botany will not show all pertinent results)

### Field book items and collections housed in Main Library, NMNH:

- Cataloging Record Source: "Field Book Registry"
- Keyword search "National Museum of Natural History (U.S.). Main Library"

### Field book items in Main Library (not collections):

- Cataloging Record Source: "Field Book Registry"
- Keyword search "National Museum of Natural History (U.S.). Main Library"
- Type "field notes"

### To select a type of record, use the following keyword searches:

- "Personal name"
- "Organization name"
- "Expedition name"
- "Collection record"

To see examples of searches for specimens, field books, and publications, check out the Field Book Project's blog post series with Biodiversity Heritage Library at: <http://nmnh.typepad.com/fieldbooks/2013/03/the-expedition-documentation-trifecta-biological-survey-of-panama.html>

### Primary categories for narrowing a search

The screenshot shows the 'Modify Your Search' interface with the following elements and annotations:

- Search Term:** A text input field with an 'apply' button.
- Search Options:** A button labeled '> Search Options'.
- Narrow By:** A section with several filter categories, each with a dropdown arrow and a list of options:
  - online media:** Annotated with 'digitized field books'.
  - type:** Annotated with 'format (e.g. journal or photo album)'.
  - topic:** Annotated with 'scientific disciplines'.
  - name:** Annotated with 'creator of field books (person, organization, expedition)'.
  - culture:** Annotated with 'creator of field books (person, organization, expedition)'.
  - language:** No annotation.
  - place:** Annotated with 'geography'.
  - date:** Annotated with 'dates of record content'.
  - catalog record source:** Annotated with 'limit to Field Book Registry records'.
  - science categories:** No annotation.
  - on exhibit:** No annotation.





## The Field Book Project

37 Prairie Squirrels or Wishtun

Ankery



on the same holes - Villagers  
hill near Water, holes 1/2 in at  
Dark brown belly white, tan  
head nails of squirrels - Vill  
square holes 10 feet apart be  
nround near Smith's view W  
difficult to kill, will soon  
pretty good after expos. to fro  
rank otherwise - Police of W





Smithsonian Institution

*Create Your Own Field Notes  
Lesson Plan and Activity:*

[www.mnh.si.edu/rc/fieldbooks/education.html](http://www.mnh.si.edu/rc/fieldbooks/education.html)

*Share your experiences with us: [NakasoneS@si.edu](mailto:NakasoneS@si.edu)*



Council on Library and Information Resources



Smithsonian Women's Committee



J. PAUL GETTY CENTER'S  
TREASURES



**The Field Book Project's mission** is to create one online resource for biodiversity field books. Funded by the Council on Library and Information Resources, the Field Book Project is a collaboration between the Smithsonian Institution Archives and the National Museum of Natural History.

## Create Your Own Field Books Lesson Plan and Activity

- Objectives:** 1) Introduction to field notes, scientific observation, and field research  
2) Familiarity with scientific concepts and vocabulary
- Content Area:** Science, Biology
- Activity Time:** **K-3:** 15-30 min in class or as homework; 1-5 specimens  
**6-8:** 40 min-1 hour in class or as 3 day homework assignment; 5-10 specimens  
**9-12:** 1-2 hours in class or as week-long homework; 10+ specimens
- Materials:** 1) Notebook and pencil/pen 2) Camera 3) Color pencils or crayons (if drawing)

### Overview

Knowledge of the living world begins with scientific observations recorded in field notes. When biologists collect specimens to study, they keep field notes in which specimen names are recorded along with observations about the specimen, the collecting event, and the surrounding environment. Occasionally, drawings or photographs supplement written documentation.

Observation is essential to field research. Scientific observation requires the use of senses to receive information about the specimens collected and the context in which the specimen is collected. Observations can be wrong, for example, when our senses fool us or when biases and assumptions cloud our perception. To aid their senses, scientists often employ instruments to obtain data about specimens like size, weight, sound or other characteristics. Instruments also aid scientists in capturing contextual information like time, temperature, altitude, coordinates, and other aspects describing when, how, and where specimens were obtained.

### Types of Observations during Field Research

Location: Observations of location range from general observations about the state and city to more specific observations like the name of a river, miles or paces from a landmark, or geographic coordinates.

Date and Time: Biologists often observe the date and time that specimens were collected.

Physical Characteristics: **Color** is important because sometimes specimen colors, as on fish for example, fade after being collected. Biologists pay attention to **measurements** like length, height, or weight. **Sound** is also important to observe because that is how many animals communicate.

Photos and Sketching: Biologists often use photographs to remember what specimens and their surrounding environments look like. Many biologists also rely on sketches, even if they have photographs, because of the immediacy of sketching a drawing in a notebook. Sketching also allows biologists to depict certain concepts that are difficult with photographs.

## Create Your Own Field Books Lesson Plan and Activity—Smithsonian Institution Field Book Project

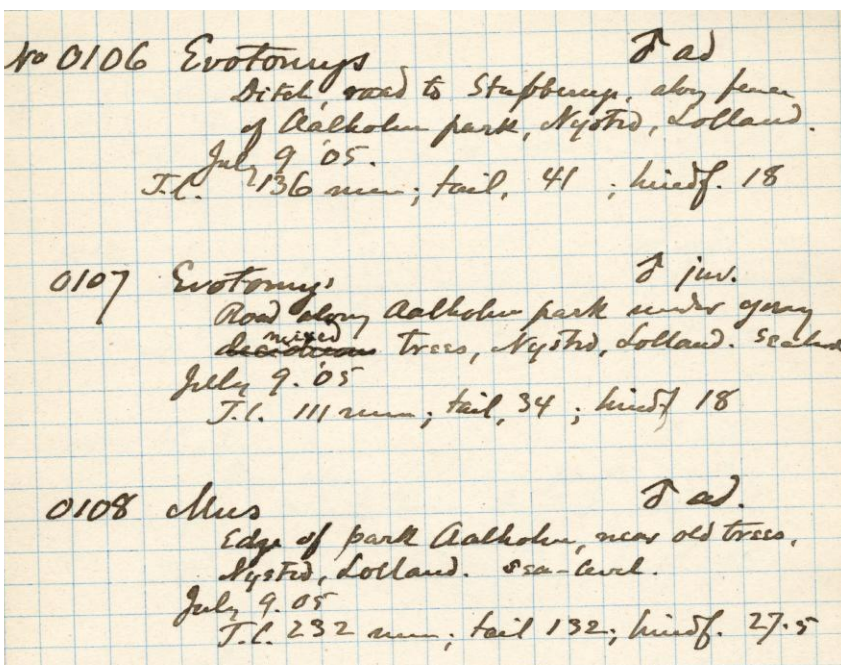
**Taxonomy and Classification:** As biologists collect specimens, they write down the common name or scientific name of the specimen and give that specimen a number. Scientific names are based on **taxonomy**. Taxonomy is the study of **scientific classifications**, which is grouping living things into categories based on shared evolution and characteristics. Every living thing belongs to several categories of life. For example, humans belong to the group Animals, but we also belong to the group Mammals. Every living thing has also has a **binomial**, which is a two part names consisting of genus and species. Ex. Humans: *Homo sapien*. The other commonly used levels of classification above genus and species are Kingdom, Phylum, Class, Order, and Family.

**Environmental and Contextual:** Environmental context helps biologists learn about how specimens live. Biologists sometimes observe the **weather** for clues about a specimen's environment. Observations can be general ("cool"; "hot"; "rainy"; "very dry") or specific (30°F; wind 20mph; 1inch rainfall). Biologists also observe characteristics of the **environment** surrounding a specimen. Is the specimen found above a certain altitude? Does it live in mud? Does the specimen live in decaying material? Underneath tree bark, in a hole, or under a rock? Observing general or specific **quantities** of specimen can also tell biologists how common, abundant, or scarce specimen are, which provide clues about where specimens thrive.

### What are Field Notes?

Physical characteristics, sketches, scientific names, environment, location, date, time—that's a lot to remember! Biologists write down their observations in field books or field notes. Field notes contain the name of specimens and observations biologists made about those specimens. There are many kinds of field notes. Specimen lists and journals about collecting are two common types.

Specimen lists usually contain numbers corresponding to names of specimens. Sometimes they also include locations and other observations. In the specimen list below, numbers correspond to the names in the list, and location or habitat information is sometimes recorded below.



**Figure 1. Leonhard Stejneger's field notes**

No 0106 *Evotomys* ♂ ad  
Ditch, road to [?] along fence of Aalholm park, Nysted, Lolland. July 9 '05. T.I. 136 [?]; tail, 41; hind f.18

0107 *Evotomys* ♂ juv.  
Road along Aalholm park under the [young?] trees, Nysted, Lolland. Sea-level. July 9 '05. T.I. 111 [?]; tail, 34; hindf. 18.

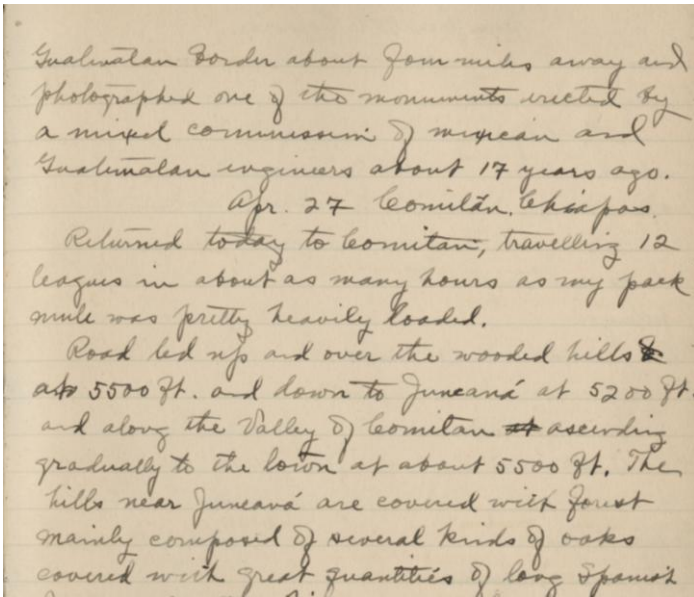
0108 *Mus* ♂ ad  
Edge of park Aalholm, near old trees, Nysted, Lolland. Sea-level. July 9 '05. T.I. 232 [?]; tail, 132; hindf. 27.5.



## Create Your Own Field Books Lesson Plan and Activity—Smithsonian Institution Field Book Project

Journals or diaries from field research often have a mixture of personal and scientific information. They contain observations of all kinds and are usually narrative and chronological. They may include detailed descriptions of the routes biologists travelled and descriptions of what they saw as seen in Figure 2.

Journals can also provide anecdotal notes about where and how a specimen was found, revealing details about the specimen's habitat and habits, as shown in Figure 3.

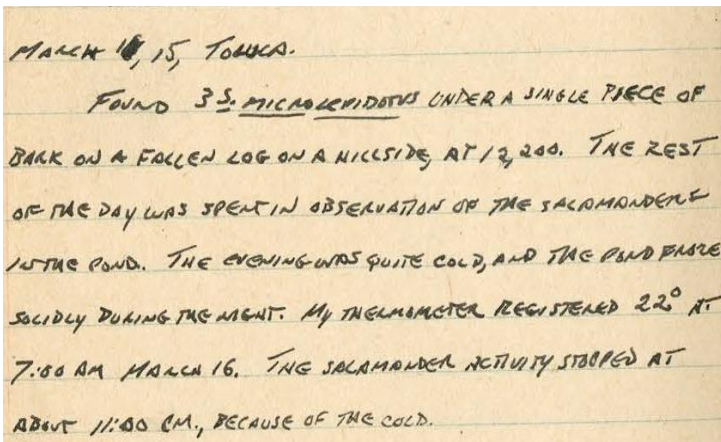


**Figure 2. Edward Alphonso Goldman journal, 1893.**

Apr. 27 Comitan, Chiapas.

Returned today to Comitan, travelling 12 leagues in about as many hours as my pack mule was pretty heavily loaded.

Road led up and over the wooded hills 5500 ft. and down to Juncana at 5200 ft. and along the Valley of Comitan ascending gradually to the town at about 5500 ft. The hills near Juncana are covered with forest mainly composed of several kinds of oaks covered with great quantities of long Spanish [...]



**Figure 3. Journal of James A. Peters, 1949.**

March 15, [1949] Toluca.

Found 35 *microlepidotus* under a single piece of bark on a fallen log on a hillside at 12,200. The rest of the day was spent in observation of the salamanders in the pond. The evening was quite cold, and the pond froze solidly during the night. My thermometer registered 22° at 7:00 AM March 16. The salamander activity stopped at about 11:00 PM, because of the cold.

Create Your Own Field Books Lesson Plan and Activity—Smithsonian Institution Field Book Project

Less typical field notes may include photographs, sketches, maps, and field correspondence. Examples of each are shown below.



Figure 4. Laysan albatross, Laysan Island, circa 1961-1973.



Figure 5. Sketch and description of *Callicanthus lituratus*, 1901.

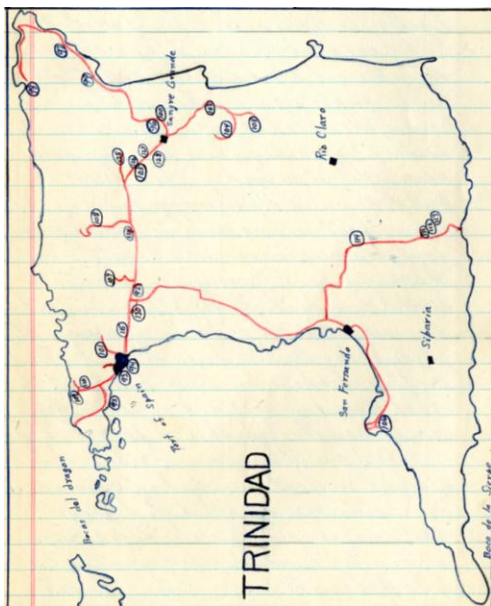


Figure 6. Traced and annotated map of Trinidad, 1935.

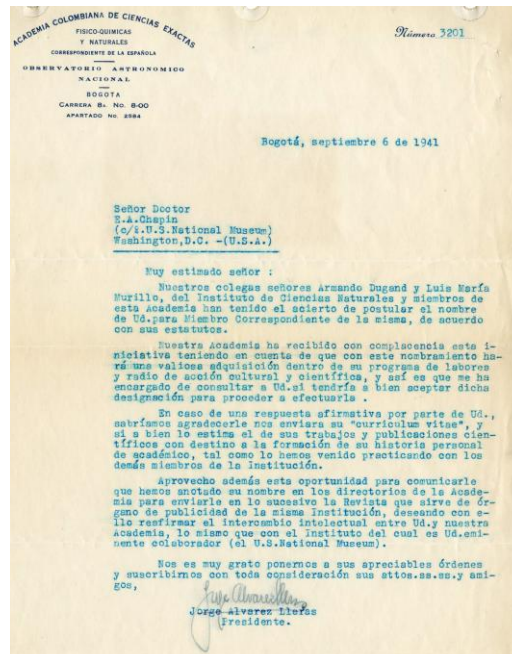


Figure 7. Letter to Edward A. Chapin from Jorge Alvarez Lleras, 1941.

## Create Your Own Field Books Lesson Plan and Activity—Smithsonian Institution Field Book Project

### Determinations

Determinations are identifications of the taxonomic name of a specimen. Biologists sometimes cannot fully identify a specimen during collection. They may know the genus, but not the species, or identify the specimen incorrectly. Determinations are done after the specimen is collected, sometimes in a lab and sometimes by another scientist, to confirm or supply taxonomic names.

### Classification

KPCOFGS stands for **K**ingdom, **P**hylum, **C**lass, **O**rders, **F**amily, **G**enus, **S**pecies. This mnemonic is useful for remembering **KPCOFGS**: King Phillip Comes Over For Good Soup

### Terms

**Observation:** receiving knowledge of the outside world through our senses, or recording information using tools and instruments. <http://www.experiment-resources.com/scientific-observation.html>

**Field notes:** records of field events leading up to and including the collection of specimen.

**Specimen:** A portion of or entire life form collected for testing, examination, or study. For example, a plant or animal (entire life form) or a leaf or bone (portion).

**Classification:** systematic arrangement into groups or categories according to established principles.

**Binomial:** the two part name of a living thing that includes its genus and species.

**Determination:** identifying the taxonomic name of a specimen.

### **Image credits:**

**Figure 1:** Descriptions of reptiles and amphibians with specimen numbers from Europe (1905) and Virginia (1906). Smithsonian Institution Archives, Record Unit 7074, Stejneger, Leonhard, 1851-1943, Leonhard Stejneger Papers, box 26, folder 4.

**Figure 2:** Mexico, April 4 - August 10, 1893. Smithsonian Institution Archives, Record Unit 7364, Edward William Nelson and Edward Alphonso Goldman Collection, box 26, folder 4.

**Figure 3:** Field notes : Mexico, 1949. Smithsonian Institution Archives, Record Unit 7175, Peters, James Arthur, 1922-, James A. Peters Papers, and Records of the Division of Reptiles and Amphibians, box 49, folder 6.

**Figure 4:** Smithsonian Institution Archives, Record Unit 245, box 230, folder 13. Negative number SIA2011-1358

**Figure 5:** Smithsonian Institution Archives, Record Unit 7184, box 16, folder 8. Negative number SIA2011-1233.

**Figure 6:** Smithsonian Institution Archives, Record Unit 7184, Accession 96-099, box 1, folder 7. Negative number SIA2012-1209.

**Figure 7:** Field notebook, Colombia, 1941-1942. Smithsonian Institution Archives, Accession 11-085, box 1, folder 2.



## Instructions for Teachers

Discuss the concepts outlined above with your students. For 7<sup>th</sup>-12<sup>th</sup> grades: allow students to read the overview before class discussion.

- 1) Observation. Explain this concept and ask your students to provide examples of how they observe objects or how they use senses to observe.
- 2) Observation methods. Review the various types of observations biologists make and ask your class to take a minute to make some of those observations about themselves or a nearby object.
- 3) Field notes. Explain what field notes are and their purpose and usefulness.
- 4) Determinations. *Deemphasize taxonomy, classification, binomials, and perhaps determinations for younger students.* Review the concepts of classification with your class. Share with them the KPCOFGS example from above or make your own. Encourage students to make their own mnemonic device or create one together as a class.

### Activity

Students will “collect” specimens and record notes on their findings. Limit “collecting” specimens to observing, noting, and taking photos of specimen. For older students, actual specimen collecting may be an option dependent upon school policies, local, state, and federal laws<sup>1</sup>, scope of the course, and personal preferences of students, parents, and teachers. **Limit actual collecting to plants.** Do not collect in national, state, or municipal parks. School grounds are encouraged for collecting. Ask a trusted local resident to volunteer their yard or contact organizers of community gardens nearby as an alternative. Before starting, make sure your students have a clear idea of what they intend to observe, whether from a variety of kingdoms, one kingdom, or lower classification.

**Alternatives:** If outdoor collecting is not an option have samples of specimens set up at stations around the classroom for the students to observe and identify. Also, surrogate specimens (photographs or drawings of specimen) can be used for these exercises in the place of actual specimen.

**Photographs and Illustrations:** photographs of specimens are needed for students to conduct research after the activity. In the absence of cameras, descriptions should be more detailed and perhaps include illustrations. Review strategies for description and illustrating before the activity, and perhaps involve your school’s art teacher to create an interdisciplinary project.

### Classroom

After the activity is completed, students use their notes to make determinations, or identify specimen. Students can compare their notes to an identification chart or textbook to learn what their specimen might be. For younger students, this may involve confirming that they found a “maple leaf” or discovering that their “butterfly” is really a “monarch butterfly”. For older students, scientific names

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<sup>1</sup> Some federal and local laws prohibit or restrict collecting specimens altogether or without a permit. Examples include the Migratory Bird Act and the Endangered Species Act. Students may not know which species are endangered, so knowledge of endangered species in your area is encouraged.

## Create Your Own Field Books Lesson Plan and Activity—Smithsonian Institution Field Book Project

might be optional, extra-credit, or required. Middle school students might be expected to determine Family level or higher. High school or AP students might attempt to determine genus or species.

### Resources for classroom research

**EOL** (Encyclopedia of Life) <http://www.eol.org> is a free on-line resource that provides “a webpage for every species.” EOL brings together trusted information from resources across the world such as museums, learned societies, expert scientists, and others into one massive database and a single, easy-to-use online portal. EOL is also fully internationalized with interfaces provided for English, Arabic and Spanish language speakers. Go to EOL, type in a species name and start exploring! (K-12<sup>th</sup>)

**UBIO** <http://www.ubio.org>: Search common names to get taxonomic names in this database. (7<sup>th</sup>-12<sup>th</sup>)

**Advanced Mobile Technology Option:** The Leaf Snap iPhone app allows anyone to photograph a plant and upload it to the Leaf Snap database with minimal information. Scientists then enhance the information about that plant. Learn more at Leaf Snap: <http://leafsnap.com/>

**Downloads and Additional Resources:** Download and modify the lesson plan, and see additional resources here: [www.nmh.si.edu/rc/fieldbooks/education.html](http://www.nmh.si.edu/rc/fieldbooks/education.html).

## Student Instructions for Grades 3-6

### Vocabulary

**Specimen (biology):** A portion of or entire life form collected for testing, examination, or study.

**Sketch:** A quick drawing that gives you a basic idea of what something looks like.

**Description:** Words or other tools used to tell about an object or event. Descriptions help a person who did not see the object or event to imagine what it was like.

**Location:** A place where something is or something is happening.

**Observe:** to notice characteristics about something by looking at it or using your other senses.

### Let's get started!

What are you going to observe? Plants? Animals? Both? Or do you want to observe only one kind of animal like insects or birds?

1. Look at, but do not touch specimen unless your teacher says it's OK.
2. Find a *specimen* to *observe*. Hint: You may have to look in the sky, under a rock, in puddles, or on trees.
3. Take a picture with your camera or draw a *sketch* of your specimen
4. Give a *Description* of your specimen and where you found it. Use questions below to help you.
  - a. What type of plant or animal is it? Examples: "flower"; "tulip"; "butterfly"; "monarch butterfly"
  - b. What's the *location*? Where did you find it? Examples: "Rock Creek Park"; "On Main Street between 1st and 2nd street"; "In my back yard underneath the cherry tree"
  - c. What's the description? What does it look like? What color is it? How big is it? What looks interesting about it?
  - d. What other notes can you add? What time did you find it? What was the weather like when you found it? Was it muddy or dry where you found it?
5. Collect 5 specimens total.
6. When you go back to the classroom, your teacher will help you learn more about what you collected. For your specimen, try to answer the following questions
  - a. Did you collect any plants? What are their names?
  - b. Did you collect any animals? What are their names?
  - c. Did you collect fungi? What are their names?
  - d. What are some interesting facts about your specimens?



## Student Instructions for Grades 7-12

### Vocabulary

**Specimen (biology):** A portion of or a whole organism for use in testing, examination, or study.

**Rarity:** The quality, state, or fact of being very uncommon (Merriam-Webster)

**Abundance:** A large quantity.

**Classification:** Systematic arrangement into groups or categories according to established principles.

**Taxonomy:** The study of classifications.

**Getting Started:** What do you plan to observe? Do you want to observe plants and animals? Only plants? Only animals? Do you want to observe only one kind of animal like insects or birds?

### Instructions—Read instructions through at least once before beginning

1. Look at, but do not touch specimen unless otherwise instructed by your teacher.
2. Find a *specimen* to observe.
3. Take notes about your specimen. Be sure to include the following:
  - a. Common name. The non-scientific name of the specimen. Ex. bull frog; sunflower; trout; lark.
  - b. Taxonomy. What Kingdom does it belong to (ex. animal; plant; fungi)? Can you identify a lower level of *classification* for the specimen? For example Frogs are part of the Amphibian class.
  - c. Location of the specimen. Include both general and specific descriptions if possible. Examples: “Washington, DC”; “Tree Park, 1 mile from the head of Green Trail”; “50° 23’ N, 100° 33’ W”.
  - d. Describe the specimen. What does it look like? What color is it? How big is it? What looks interesting about it? What do you *think* it feels like? (**Do not touch specimen unless instructed by your teacher**. Instead, use visual clues to guess at what specimens feel like.)
  - e. Quantity, Abundance, and Rarity. How many are there? Are they common, abundant or rare?
  - f. Other observations. What was the weather and temperature like when you found it? Was the surrounding environment of the specimen like? Muddy? Dry?
4. Collect **5-10 specimens** total.
5. Make determinations using the resource provided by your teacher. For each of your specimens:
  - a. Check the common or scientific names you gave your specimen. Correct the name of your specimen if you didn’t get it right the first time.
  - b. Once you’ve correctly identified your specimen, try to find more specific information. Can you place your specimen into an even smaller classification?

**1. Name of Specimen:**

Location:

Description:

Other notes:

**2. Name of Specimen:**

Location:

Description:

Other notes:

**3. Name of Specimen:**

Location:

Description:

Other notes:

**4. Name of Specimen:**

Location:

Description:

Other notes:

**5. Name of Specimen:**

Location:

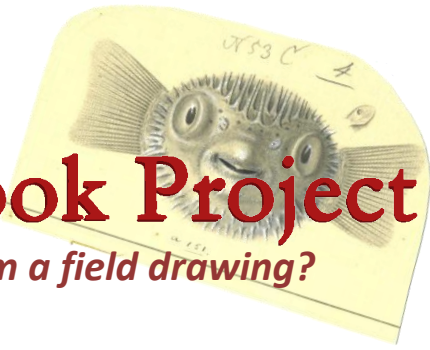
Description:

Other notes:



# The Field Book Project

*What can you learn from a field drawing?*



## For Teachers:

A lot of information about specimens gets lost after it is collected. For some specimens, colors and textures change after they die. Drawing in field books can help collectors remember what the specimen looked like when it was collected. Drawings can be of the whole specimen or of part of the specimen.

The field drawing activity is designed to show your students how illustrations and text in a field book help describe a specimen at the time it was collected. Students study examples of field drawings and identify types of text that describe the image. They then get the chance to draw their own example of a specimen drawing.

**Note:** For a bonus, students can circle and identify additional information listed on field drawings. Several images include information about size, artist, or specimen number.

## Background on drawings

Field drawings were selected from illustrations created during the United States Exploring Expedition (1838 -1842) and are part of the Record Unit 007186 at the Smithsonian Institution Archives. The expedition was headed by Lieutenant Charles Wilkes of the US Navy, and explored regions of the world that were rapidly becoming of interest to American traders and whalers. It included a group of scientists and two illustrators, one of which was Joseph Drayton, whose works were chosen for this activity. The expedition sailed from Norfolk, Virginia, and explored Madeira, both coasts of South America, the South Pacific islands, Australia, New Zealand, Antarctica, the Hawaiian Islands, Washington and Oregon territories, California, the Philippine Islands, Singapore, the Cape of Good Hope, and St. Helen. Wilkes's voyage along the Antarctic coast during the expedition established the existence of that continent.

Information above was taken from Smithsonian Institution Archives finding aid: "*SIA RU007186, United States Exploring Expedition (1838-1842), United States Exploring Expedition Collection, 1838-1885,*" retrieved August 23, 2012 from [http://siarchives.si.edu/collections/siris\\_arc\\_217343](http://siarchives.si.edu/collections/siris_arc_217343).



## Additional information on field drawings and photograph

1st field drawing: *Ophisurus* (a genus of eel). It was collected in November 1839 off the coast of Upolu, an island in Samoa. Image#: SIA2011-1234

2nd field drawing: genus *Balistes*. The common name is Triggerfish. The specimen was collected in August 1839 off the coast of Clermont de Tonnerre Island (spelled Tonnier in the drawing). The island is now known as Atoll Reao and is part of French Polynesia. Image #: SIA2011-1230

3rd field drawing: *Mylocheilus lateralis* (also known as *Mylocheilus caurinus*). The common name is Peamouth. It was collected May 31, 1841 in the Columbia River in the vicinity of Fort Vancouver. This is in Clark County, Washington. Image #: SIA2011-1233

Specimen photographed is *Pseudocheilinus hexataenia*, also known as Sixstripe Wrasse. It was collected in May 29, 2000 off the coast of Mindoro island in the Philippines. Specimen is part of the collection of the Division of Fishes, National Museum of Natural History. USNM catalog number: 379431

Note: For clarity, some portions of the field drawings have been altered and text transcribed.

## Related Vocabulary

**Specimen (biology):** A part or whole plant or animal collected for testing, examination, or study.

**Description:** Words or other tools used to tell about an object or event. The goal of description is to help a person who did not see the object or event to imagine what it was like.

**Location:** A place where something is or something is happening.

**Texture:** Characteristics of a surface that could be determined by touch (e.g. rough, smooth).

## Related topics

Scientific names versus common names of plants and animals

What are specimen numbers?

What is an expedition?

Why were artists a part of an expedition?

## What can you learn from a field drawing?

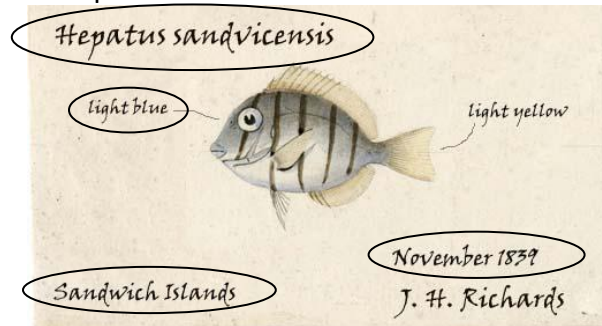
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### Directions:

For each drawing, find the kinds of information from the list below.

- Name of fish
- Date
- Location
- Colors

### Example



Match the type to the information circled.

### Example:

<b>Name of Fish</b>	<b>Hepatus sandvicensis</b>
<b>Color</b>	<b>light blue</b>
<b>Date</b>	<b>November 1839</b>
<b>Location</b>	<b>Sandwich Islands</b>

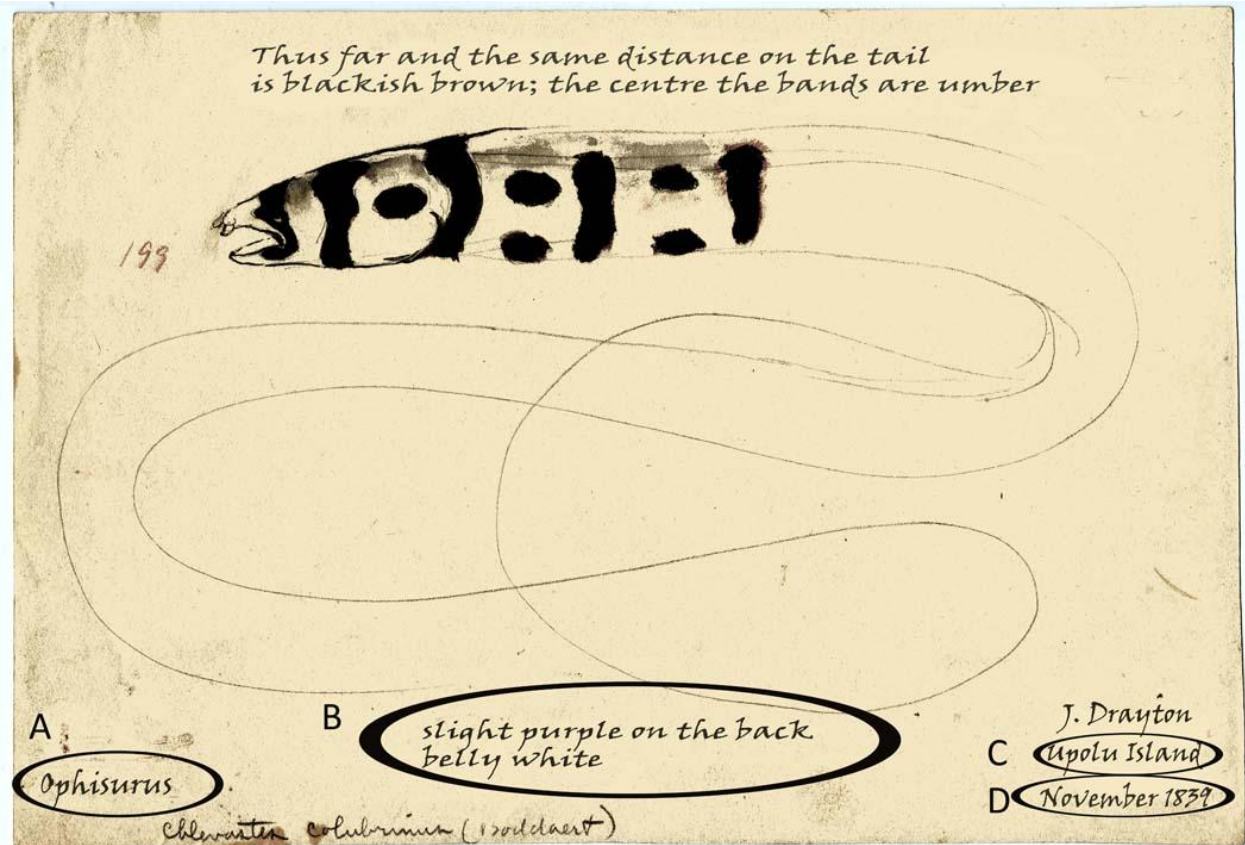
Bonus: watch for other types of information the drawings like:

- how was the specimen collected
- shapes or patterns
- textures

1<sup>st</sup> field drawing

Match the letter to the type of information in the list below.

Name of Fish \_\_\_\_\_  
Location \_\_\_\_\_  
Color \_\_\_\_\_  
Date \_\_\_\_\_



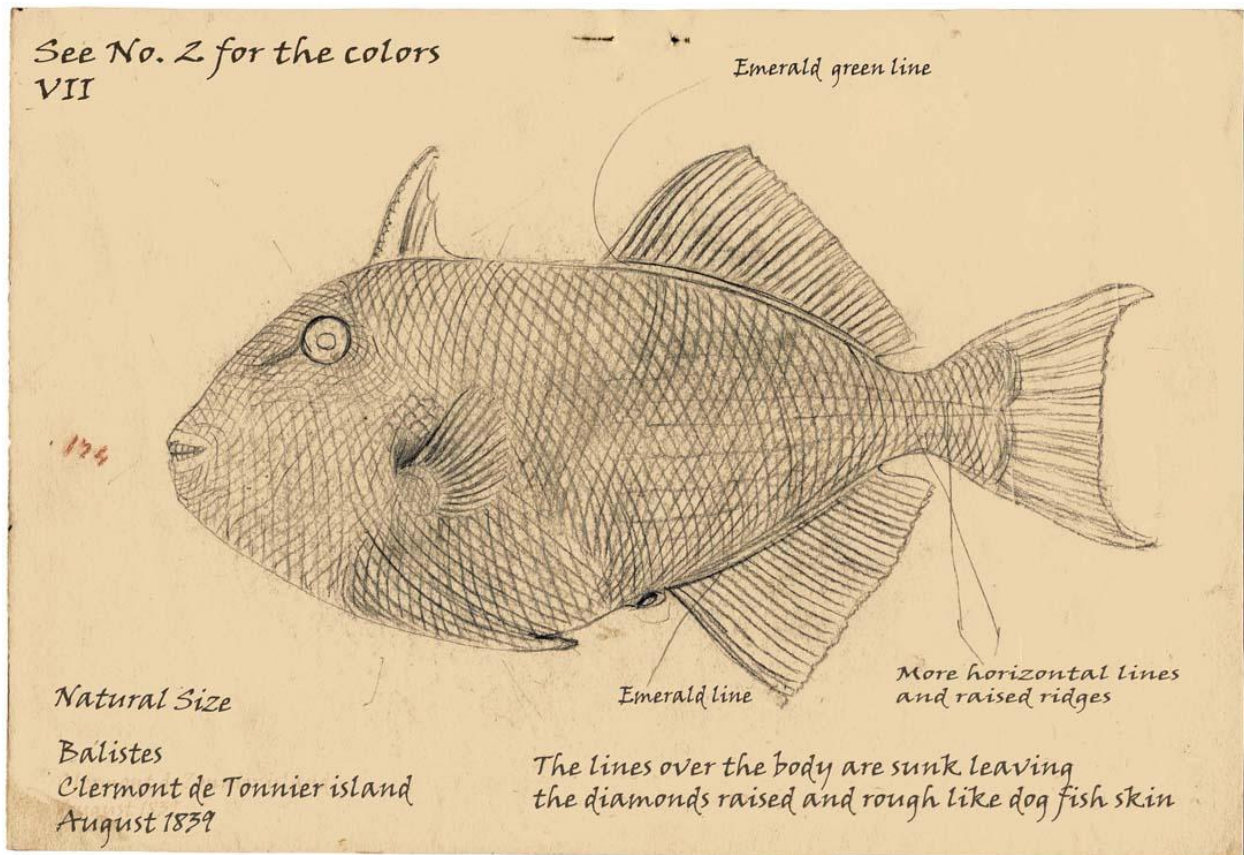


**2<sup>nd</sup> field drawing**

In the picture below find and circle the **name of fish, location, date,** and 1 description of **color**).

Next to your circles, write down the letter for the type of information.

- A Name of fish
- B Location
- C Date
- D Color



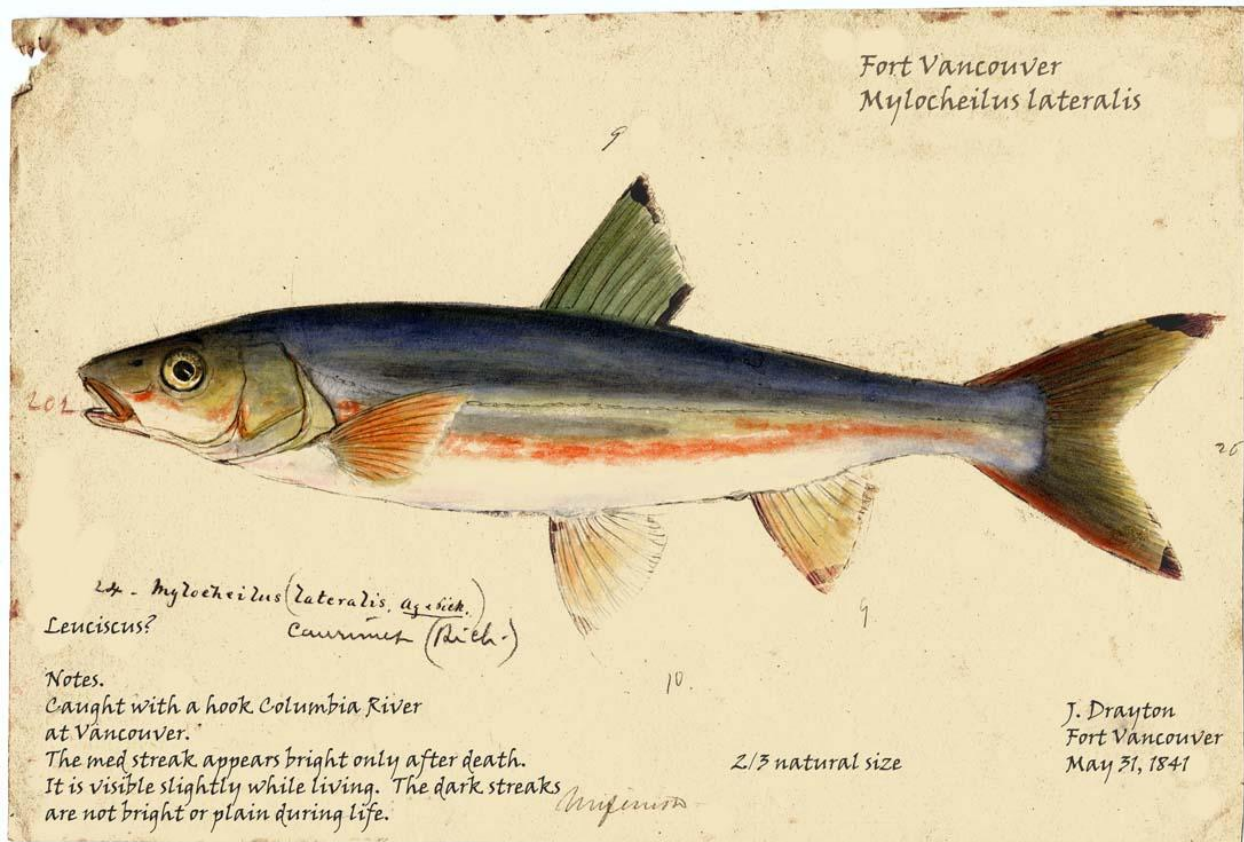
**3<sup>rd</sup> fielding drawing**

In the picture below find and circle the **name of fish, location, and date**).

Next to your circles, write down the letter for the type of information.

- A Name of fish
- B Location
- C Date
- D Color

Find and circle how the scientist caught the fish.



Can you find any other types of information written in the picture? Look for information about: **colors, shapes or patterns, size, or textures.**

## Try it yourself!

Now that you know what to write down when you draw in your field notes, you can make your own drawing in the box below. As a class or on your own, look at this picture of the fish caught in the Philippines in 2000. Below, draw and take notes on what you see.

Remember to consider notes about: ***colors, shapes or patterns, and textures.***



*Your drawing*

