



Local Buggers: An Inquiry-Based Introduction to Local Insect Populations

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GK-12: Down to Earth Science

Introduction:

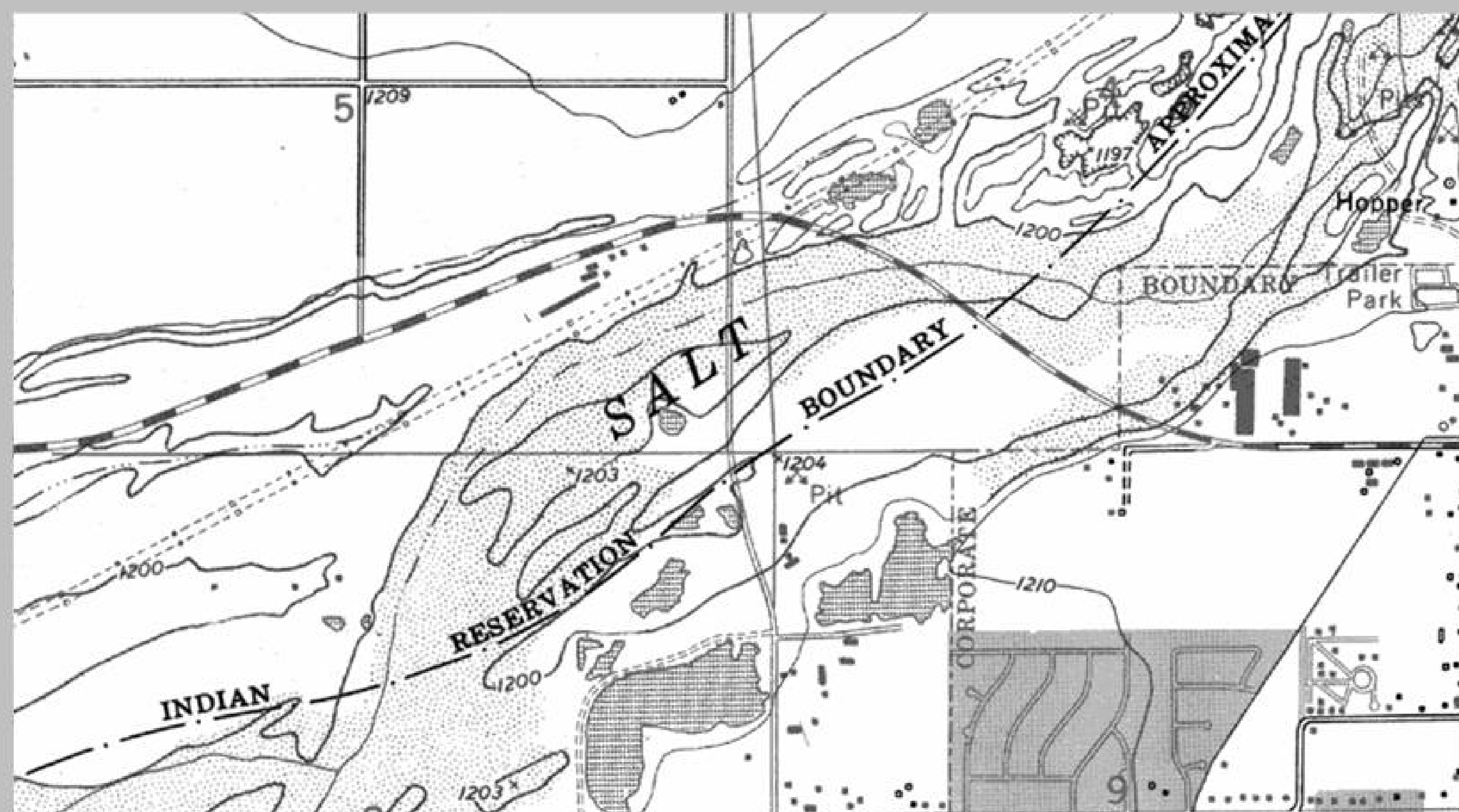
Insects are the most abundant and diverse taxa in the animal kingdom, and thus present a potentially rich and meaningful opportunity for students to connect with local flora and fauna. Here I present a series of inquiry-based activities that introduces students to the diversity of local insect populations through the construction of a class insect collection.

Using the resulting collection, students

- create and defend their own classification scheme
- compare it to more established classification systems such as the Linnaean system
- explore the relationship between insect distribution and habitat type
- investigate morphological differences between insects in their collections.

Appropriate Grade Level: 5th – 8th Grade

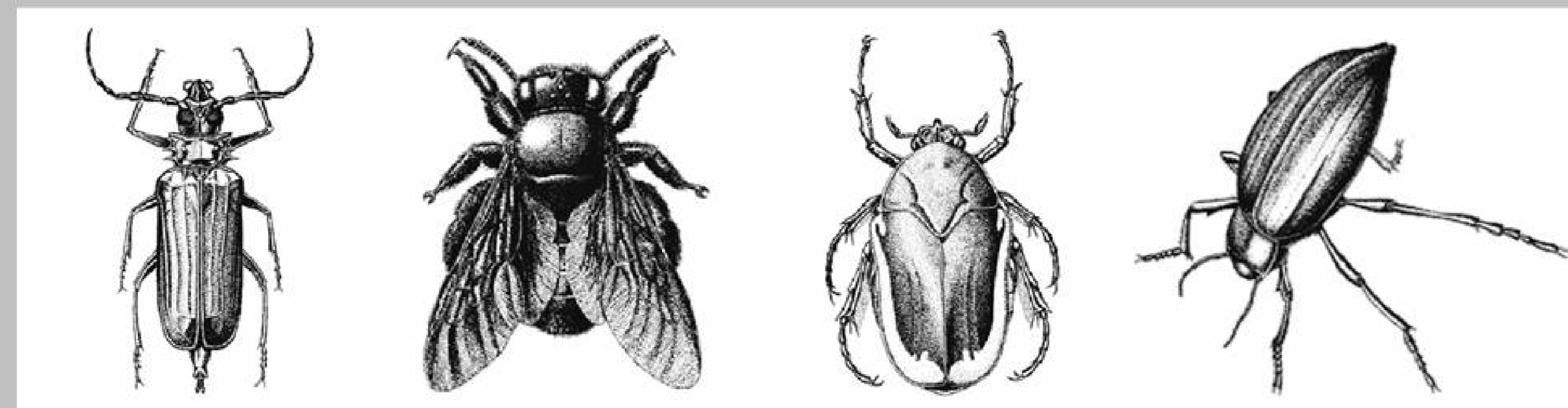
Approximate Time Required: 8-9 fifty minute class periods



Objectives:

Students will be able to:

- identify an insect as distinct from other arthropods.
- catch, preserve and label insects according to standard protocols.
- make careful observations about insect morphology using the naked eye, magnifying lenses and dissecting microscopes.
- classify insects in to functional groups.
- explore the utility of the Linnaean system for categorizing living organisms.



General Procedure:

- 1) Classroom introduction to common insect features.
- 2) Collection trip to a nearby natural area, including exploration of graphical representations of this area (topographical maps and aerial photographs if available).
- 3) Pinning and labeling of collected insects.
- 4) Student exploration of insect collection, including drawings and written descriptions of several of their specimens.
- 5) Classroom discussion of habitat type and insect distribution/morphology.
- 6) Student groups devise their own classification scheme and present it to the class.
- 7) Discussion of classification schemes and introduction of the Linnaean classification system.

Assessment:

Student assessment during this activity is accomplished through student worksheets and teacher evaluation of student classification presentations. These assessments can be supplemented by an informal evaluation of the care with which students preserve, pin and label their insect collection.

Access:

This lesson plan and supporting materials are free through the following website: <http://gk12.asu.edu>



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