

VIDEO MODULE: How to Make an Insect Collection

Making an insect collection is an entomological rite-of-passage for many high school biology students as well as for a large number of college students taking their first entomology course. To help make this enterprise more efficient, enjoyable, and gratifying, I offered a 2-credit seminar Spring Quarter (2010) with the goal of producing a series of video clips on making an insect collection. The operational concept for producing these clips, all of which were to be packaged in a module titled '*How to Make an Insect Collection*', was to create a small number of short (30-90 secs), tightly-scripted videos describing the basic steps or procedures for collecting, preserving and displaying insects. Completeness, detail and high tech were traded off for brevity, simplicity and low cost. The resulting video clips (See: <http://entomology.ucdavis.edu/file/howto/>) included:

CLIP	SECONDS
COLLECTING	
Ground collecting	54
Aquatic collecting	58
Hand collecting	32
Using an aspirator	34
Using nets	56
Killing	51
PRESERVING	
Pinning	43
Point mounting	50
Spreading	77
Labeling specimens	48
DISPLAYING	
Storage and display	<u>32</u>
TOTAL	\approx 9 mins

Participants (and thus videographers and video-clip producers) included UC Davis entomology undergraduate students Joseline Saldivar, Tylan Selby and Ralph Washington, Jr., and graduate students Emily Bzdyk, James Harwood, Brittany Nelms and Amy Morice. I am grateful to Bob Kimsey for doing the introductory audio used in all clips produced by the students, to Paul Verwey for his presentation on the basics of videography and editing, to Wes Nelms for his tutorial on the use of Vegas Movie Studio software, to Kathy Garvey and Tabatha Yang for their input each week, and to the students for making the seminar an engaging, enjoyable, fulfilling and productive experience.

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Making the Video Module

Making the clips for the ‘*How to Make an Insect Collection*’ module was a low tech/low cost operation, partly by default (i.e. neither I nor most of the students or staff were familiar with producing videos), and partly by design. I wanted production to be ‘low tech’ so that anyone who could use a point-and-shoot camera and basic movie-editing software could produce a video clip. It needed to be ‘low cost’, not only because there was no funding for this seminar project, but because the basic challenge was to produce a set of high-content/high-quality video clips at virtually zero cost. Although the specific goal of the ‘How to’ seminar was to produce the module on insect collecting, a broader objective was to create a model that others could use to create their own module of ‘how to’ videos on any number of topics.

SUMMARY

1. **‘How to’ examples.** Initial reviews of 8-10 different ‘how to’ videos posted on YouTube provided many ideas including video clip do’s (e.g. sparse, simple, short, direct) and don’t’s (e.g. ramble, scene clutter, too long), and video models (e.g. ‘cooking’ model; ‘this-old-house’ model).
2. **Equipment/software/supplies.** Tripod-mounted ‘point-and-shoot’ cameras with video capabilities were used to record all demonstrations used in the video clips. One student team used MovieMaker software (included in MS OFFICE package) and the other team used Sony Vegas Movie Studio (\$85). Photoshop was used by both teams to sharpen the images in imported photos. The content of clips dictated entomological needs such as nets, pins and spreading boards.
3. **Scripts.** All clips were carefully scripted, most of which involved a narrative that was written out and recorded separately ‘voice over’ (using microphone hooked into laptop), a shot sequence for the equipment/supply needs, and the demonstration of the procedure (e.g. spreading; ground collecting). Emphasis was placed on simplicity, compactness, and non-technicality.
4. **Shooting/Recording.** Shooting short clips was preferred over shooting long ones since few demos required over 15-20 seconds of continuous recording. Multiple cameras from different angles (e.g. overhead; profile) were used for some demos. Camera zooming was strictly avoided although in one clip (pinning) the movie editing software was used in a slow ‘zoom’ for emphasis. Indoor demos were illuminated using desk lamps and/or ambient lights and outdoor demos were shot either in the shade or on slightly overcast days. Sound was limited to voice-overs (use the same microphone for all voiceovers to maintain continuity of quality and tone).
5. **Editing**—Short clips and pauses were used between voice-over sentences for easier editing. Simple, non-flashy transitions were used between video segments. Labeling was kept simple and sparse with consistent text and font (Georgia font was chosen because it was easy to read and resembled the font used in the UC Davis logo).
6. **Template:** Each video clip consisted of four sections: (1) *Lead*—both cover and title slides, the former identifying UCD Entomology, and the latter consisting of the ‘How to’ module title and then a fade in of the specific clip (e.g. Pinning); (2) *Equipment/supplies*—section laid out in a voice-over slides containing pictures of the ‘ingredients’ (e.g. pins; mounting board); (3) *Demonstration*—the actual demo of the procedure; and (4) *Closing*—single slide containing information on additional clips, the date, and the participants of the ‘how to’ seminar.