


from an uninspiring, monotone narrator who will challenge the attentiveness of all but the most determined viewers. The program benefits from the examples of actual research, however the scientists shown are also uninspiring in their narrations, and they provide inadequate, and even inaccurate explanations of the technologies. In the explanation of the use of restriction enzymes. One researcher states "...they cut at specific amino acid sequences, uh-bases..." Descriptions of the basic concepts of DNA and DNA manipulation are given verbally, accompanied by still diagrams. Visual learners will have difficulty understanding what is being described. The program would have benefited from the use of animation in these areas. The description of the particle bombardment method is thorough and the viewer is presented with a demonstration of the gene gun being used to transfer a fungal resistance gene into barley embryo cultures.

You would be best served using this video after a discussion of DNA manipulations and gene transfer technologies, as the descriptions in this program are not suitable for the students' first exposure to these concepts. However, if you really desire to have your students see the operation of a gene gun, and you don't have access to one for a hands-on demonstration, this video is the next best thing. Sixteen minutes might be a little long for just the demonstration that occurs about half-way through the program. More animation would make it a better use of class time.

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Microcosms. 1997. Miramax Home Entertainment (available from retail video stores). Videotape. 75 min. Purchase \$14.99.

 French film makers Claude Nuridsany and Marie Perennou create a "bug's-eye view" of insects going through their daily struggles for survival. This young child's video is real-life film of the insects that inhabit our world. The footage includes clear, crisp, sharp images of the world moving from the larger human perspective downward towards the trees and grasses as the viewer gets a closeup of the insect's world.

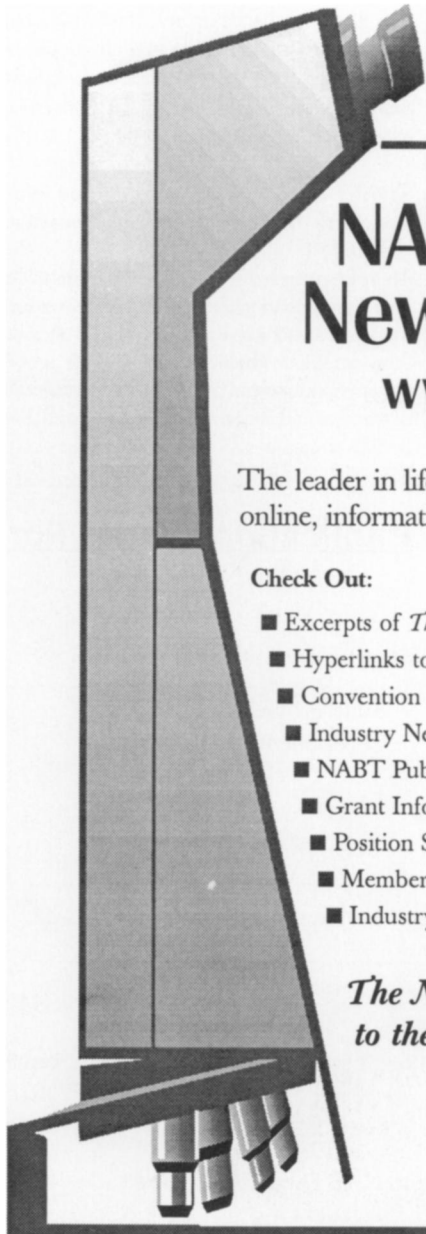
There is great video of beetles taking flight, eating aphids, competing, and even mating. There is little oral narration to accompany the video, so there is limited information for the instructor

who does not understand the entomological world. An instructor could use special knowledge of biology and ecology to interpret the diversity within the tape, though each segment would need to be cued up in advance. Each segment plays for 30 seconds to 5 minutes, with an average segment running about two minutes.

Aquatic scenes show a myriad of interactions within an ecosystem. Food web and predator/prey relationships are focused on in many of the segments. Nuridsany and Perennou have created a fine video of some of their best work, though narration or music would have helped a great deal. The tape might be used for specific segments within an ecology course or as

a running tape during a quiet time for young children. For older students, another approach might still make this a useful video. Are your students careful observers? Could they use some practice writing descriptions of what they see? You might consider using short segments to help them develop that skill. Consider taking them beyond that level by having them extend their observation to questions about the observed behaviors and relationships. Could some of the mating behavior scenes be used as lead-ins for the fruit fly mating behavior lab?

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