

the learner a real reason for using what has been taught in formal subjects. Project material is unlimited. I would not have considered presenting "Seashore Animals Inshore" in the third grade. The children presented it themselves. Children, who are encouraged to bring interesting things to school to share with others, can furnish far more project material than ever can be used.

The Use of Balsa Wood in the Preparation of Skins of Small Mammals

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Many biology teachers in high schools and colleges maintain a small collection of mammal skins for teaching use. These collections are subject to much unskilled handling and as a result there is likely to be considerable damage to even the best-made specimens. Legs and tails are frequently lost, so that replacements are constantly needed. In the case of common species this is no more than a nuisance, but specimens which cannot be

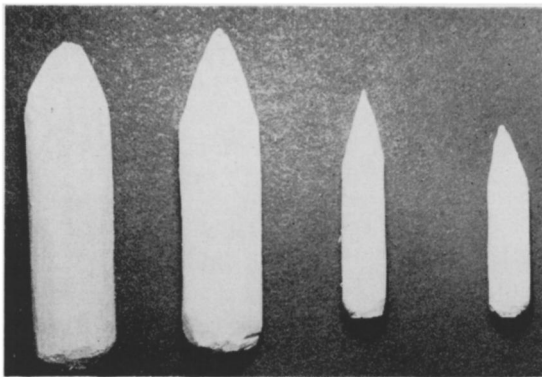


FIG. 1. Pre-shaped balsa wood body forms for small mammals. From left to right, *Pitymys pinetorum*, *Blarina brevicauda*, *Sorex fumeus*, *Sorex cinereus*.

readily replaced present a real problem. Often these specimens are not put out for class use, thus rendering them essentially valueless. The proper solution is to make specimens less destructible.

The use of pre-shaped balsa wood bodies offers much promise in this connection. These bodies (Fig. 1) can be whittled from one inch stock for animals from the size of a deer mouse to the size of a chipmunk, and

from $\frac{1}{2}$ inch stock for smaller shrews and mice. The bodies are shaped roughly in advance with a scalpel or razor blade, and modified slightly to fit the individual when the specimen is prepared. The tail wire is firmly imbedded in the balsa body, and insect pins or steel wires are put through the legs and into the body. Small slots may be made in the body on the ventral surface to facilitate placement of the wires. Care should be taken that the body is not too large, so that it

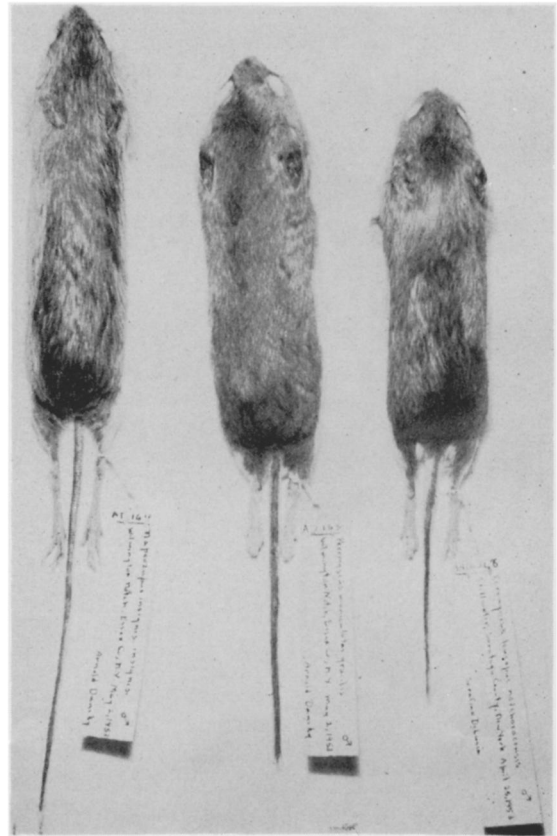


FIG. 2. Mammal skins prepared with pre-shaped balsa wood body forms. Left to right, *Napeozapus insignis*, *Peromyscus maniculatus gracilis*.

stretches the skin, since this will change the arrangement of the hairs and result in change of color. Cotton pads may be placed under the eye openings, so that the specimens will be externally uniform with those stuffed with cotton.

Besides the increased durability thus achieved, there are several other advantages of the balsa wood method. Body shape can be more accurately approximated with balsa than with cotton. The balsa is much easier to insert and if prepared in advance will re-

sult in some saving of time in preparation. The biologist who makes few skins will make better skins by using this method (Fig. 2).

The balsa wood may be purchased from hobby stores at a cost of one to three cents per body form, depending upon the size of the specimen. It is probably not practical for animals larger than a chipmunk, but the problem of breakage is not so acute in these specimens. It is especially useful for the small shrews whose skins are often very delicate.

Balsa wood will probably never supplant cotton as a material for stuffing mammals. It is, however, a useful substitute when well-made and durable specimens are of primary importance.

DR. JULIAN HUXLEY WINS KALINGE AWARD

Dr. Julian S. Huxley was awarded the Kalinge Prize for distinguished popular writing in science recently during a ceremony at Unesco House in Paris. This annual award was established in 1951 as a gift to Unesco from Mr. B. Patnaik, distinguished industrialist from India, and includes a cash grant this year of over \$2800. In establishing the prize, Mr. Patnaik said, "I am convinced of the necessity of making the great masses aware of the methods and achievements of scientific research, and to make them understand the impact of science on our daily behavior."



Dr. Huxley is the grandson of biologist Thomas Huxley, 19th century proponent of Darwin. He is the world-famous author of many popular life science books and articles, including *Essays of a Biologist* and *Man in the Modern World*, and is also well-known for his prize-winning film, "The Private Life of the Gannett," and his radio series on "Scientific Research and Social Needs." Dr. Huxley left in September for Australia, will spend a week on The Great Barrier Reef, attend the Pacific Science Congress at Manila, and then travel to Java and Thailand. After attending the Indian Science Congress, he will spend several months in India.

Food-Chain Culture of *Daphnia*

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There is a need for easier methods of keeping alive more kinds of laboratory animals. The usual published methods are too exacting to be followed by most of us. The animals may each be used for only a week or two during the year as laboratory specimens in a course, but we realize the educational value of having them continually available to the students. The amount of work involved in maintaining such cultures by the usual procedures, suited to research, is generally prohibitive.

For example, previous methods of culturing *Cladocera* generally require either careful preparation of food, or rather frequent transfer to fresh cultures, or both, and almost daily observations to see that all is well. Artificial aeration is also recommended in some cases. When so much care is required, these animals, excellent for instruction purposes, are omitted for most courses, or inferior preserved specimens are used.

This paper tells of an attempt to provide a new method for maintaining *Daphnia* with the least possible labor.

We have kept *Daphnia* in gallon pickle-jars and two-gallon rectangular aquariums. Each was supplied with aged tapwater, a small *Elodea* plant left floating, and a few *Planorbis* snails, the so-called Japanese ramshorns of tropical fish fanciers. The only materials added were small amounts of fish food one to three times a week, but not regularly, and more aged tap-water every two to