



The author inspecting a few of the more than 1/10th million insect specimens in the University of Arizona collection.



identifications. It is easier and more satisfactory to compare an unknown specimen with one already determined than it is to identify it by comparison with a description in the literature.

For Many States

Secondly, the University collection is a study collection for entomologists in many states. Arizona entomologists benefit from similar collections in other states. At the University we are attempting to get a sample of all of the insects that occur in this state. When a specialist studies a particular group of insects, he can gain knowledge of our species without actually visiting the areas from which they came. Specialists usually work on all the species in a group from a very large area and cannot be expected to visit all the states they cover. They must depend on the collections amassed by others. Work of entomologists in other states is helped by the inclusion of our material; and we benefit from their studies and by getting back a series of authentically named specimens.

For the Record

Thirdly, the collection is a file of unalterable records. A specimen saved, with its date and locality of capture, authenticates a written or published record. Without them it is not easy to build on the work of the past. Our activities in connection with the Cooperative Economic Insect Survey are resulting in many new records of economic insects; specimens are added to the collection which will result in a truly permanent record of the insect activities during this period.

In most cases a specimen consists of a dried insect, pinned directly or glued to a small triangle of cardboard which is pinned. The specimen is worthless scientifically unless a label giving at least the locality and date of collection is on the pin, too. A specimen bearing still further labels is of considerably greater value, particularly if an additional label tells the food plant or other host on which it was taken. If the host is a plant or animal that provides all or part of our livelihood we are, of course, immediately concerned; often an apparently unimportant host proves to have an important part in the support of insect pests that are detrimental to us.

How We Are Affected

There are many indirect ways in which insects affect us. Most noteworthy are those that kill other insects: the predators and parasites that keep down the numbers of crop pests. We do not yet have a sample of all of these—not do we

know them all by name. It is of importance to learn whether these insects are restricted to crop pests in their feeding or whether they also affect insects on other plants. If they do, we may eventually want to encourage a high population of the parasites and predators.

Then there are the many insects that are involved in the pollination of plant crops. As more and more of these are collected on certain plants, a clearer picture emerges, which shows which ones are our best friends. These, too, could well be encouraged.

Lastly, there is a very large number of species that do not seem to be associated with agricultural ventures, but with the plants of the desert, grassland or forest. We do not know what most of them are doing most of their lives. Each must affect the balance of the other animals and plants of these areas in some small way. The occasional periods of great abundance of otherwise very scarce species indicates that each is being kept down by another and perhaps by several others. We cannot yet predict what these interrelationships may be, but our unalterable insect file makes us better prepared for whatever insect problem that might face us.



The Arizona Farm and Ranch Hour has been suspended for the summer, as has the College of Agriculture's TV show "Across the Fence." Watch for early fall announcements of stations and hours for renewal of these programs. The county agricultural extension agents programs will continue as follows.

Cochise County

Wednesday, 6:30 a.m.—KAWT

Coconino County

Tuesday and Thursday, 8:15 a.m.—KCLS

Tuesday and Thursday, 6:00 a.m.—KCLS

Graham County

Saturday, 10:30 a.m.—KGLU

Greenlee County

Saturday, 12:30 p.m.—KCLF

Maricopa County

Monday through Saturday, 6:10 a.m.—KTAR

Sunday, 8:45 a.m.—KOY

Friday, 8:00 p.m.—KTVK, channel 3, "County Agent's Notebook"

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The What and the Why of the UNIVERSITY INSECT COLLECTION

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On the third floor of the College of Agriculture building, University of Arizona, Tucson, are about 115,000 insect specimens. They fill about 300 insect mounting boxes and 400 larger drawers. This collection has been years in the making and is currently being expanded as fast as time and facilities permit.

Why? Why collect so many "bugs"? (Incidentally, although many people use "bugs" as a general term for insects, most insects are not bugs. To an entomologist a "bug" is a member of but one of the several orders, or major categories, of insects.)

15,000 Species

The fact is that, large as the number seems, the University does not have any sample at all of some kinds or species known to Arizona. This shortcoming may never be completely overcome. There are an estimated 12 to 15 thousand species already known from the state and this number grows annually as more and more specialists study our insect population.

An insect collection can have many functions. First, it serves as the basis for