THE FOOD INSECTS NEWSLETTER

NOVEMBER, 1988  VOLUME I, NO. 2

A QUERY

Are processed insect food products still commercially available in the United States?

A QUERY

Marston Bates, the eminent zoologist, wrote in 1960 in The American Scholar(29:43-52): "In our household, I am left in complete command of one department - the things to eat with drinks. In the store where I do most of the buying, there is a wonderful assortment of temptations: fish eggs of many kinds other than the authentic but impossibly expensive caviar; fish themselves of many species, prepared in many ways; a wide variety of cheeses and sausages, of crispy fried things, olives and nuts and minced clams and smoked oysters. Lately several kinds of insects have appeared on the shelves - canned ants and silkworm pupae from Japan, maguey worms from Mexico, fried grasshoppers - the can doesn't say where they are from. Insects are an important element in human diet in many parts of the world, but they have long been taboo in European civilizations. Is it possible that they will get back into the Western diet by way of the cocktail hour?"

Bates continued: "The maguey worms [larvae of the giant skipper butterfly, Aegiale hesperiaris] have been canned for the local market in Mexico for some time, and now they are being imported into the United States by the stores that specialize in fancy foods. The canned worms are best if eaten hot; they have a pleasant, nutty flavor, which blends as well with a martini as with mescal, the potent drink that the Mexicans distill from the fermented pulque. In my home we have been trying these worms on cocktail guests. As yet we haven't found anyone who disliked them, although our guests have shown considerable variation in the degree of their enthusiasm. The worms at least provide a topic of conversation."

In concluding this particular bit of discussion, Bates said: "From these experiments of ours with guests, I get the idea that while Americans may be prejudiced, they are far from being proud of their prejudices."

Lucy Claussen of Columbia University and the American Museum of Natural History, and author of Insect Fact and Folklore (1963), also mentioned maguey worms but by another name, saying that people in the United States are eating fried "gusanos" [=maguey worms] with relish. "Close to the Mexican border, 'gusanos' are served as thrst-producers at cocktail parties. In recent years Mexico has been canning and exporting 'gusanos' and they may now be purchased in the better delicatessen and department stores of our larger cities. They are advertised as "delicious delicacies, especially with cocktails."

In 1960, Hocking and Matsumura, of the University of Alberta noted that a product canned in Japan under the name "Baby Bees" (fried bee pupae with soy sauce) had been available for some time on the Canadian market at a price of $2.20 per 2 ounces (Bee World 41:113-120). James Trager, in The Food Book (1972), after discussing several insects that are classed as delicacies in other countries, stated: "But the only insects in American supermarkets, at least the only kinds offered for sale [italics added], are fried grasshoppers, Japanese ants, bees and silkworm pupae, and Mexican maguey worms.... All are sold in cans, ostensibly as cocktail snacks but basically for their entertainment value. Americans' propensity for 'impulse purchases' is prodigious." Trager's book, by the way, was formerly titled, "The Enriched, Fortified, Concentrated, Country-fresh, Lip-smacking, Finger-licking, International, Unexpurgated Foodbook."

Finally, Ronald Taylor devoted 14 pages in his book, Butterflies in My Stomach (1975; pp. 83-96), to a description of 19 processed, mostly canned, insect foods available in the American marketplace. Most of these products (11 of them) were offered by Reese Finer Foods, Inc., who imported them from Japan. They were sold primarily as novelty items with highest sales around the New Year.

In view of the above, we were surprised to find a couple of years ago that imported insect products could not be found in specialty food shops here in Madison, Wisconsin. A number of long-time residents to whom we mentioned this were also surprised, saying that such products were formerly available. A more superficial search in Minneapolis-St. Paul was also unsuccessful. A letter to Reese, Inc., brought the information that they no longer import these products. We heard from a Chicagoan that, until recently at least, the Marshall Field Company catalog listed several insect food products, but the Madison stores knew nothing about this.

I should say that our question results more from curiosity than from any sense of urgent need. Taylor (loc. cit.), an avowed advocate of the palatability of insects, states: 'Personally, I find most canned insects unpleasant tasting - some worse than others - or, at the very least, insipid. If, however, you want to eat a canned insect, my suggestion is that you begin with the nage worm [yet another name for the maguey] and work your way through the wasp nest."

The Food Insects Newsletter  Page 2

Rice with Cooked WASPS: An Emperor Hirohito's Favorite Dish

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Recently some Japanese weekly journals have reported the following story:

The Emperor had a surgical operation on his pancreas last September (1987). Although he is said to have recovered completely from the operation, he seems to have lost his weight and appetite. However, he reportedly finished all of the wasp-rice dish even when he had no appetite and left most of the other dishes.

The wasp-rice is a mixture of cooked rice and canned wasps. The canned wasp is a specialty of Nagano Prefecture. It is a cooked wasp (a mixture of larvae, pupae, and adults of the wasp) that has been filled with sake, killed, and left in the open. They also take a small piece of meat from the frog, and attach it with a small piece of floss-silk. Then they may wait for some time, probably drinking sake, until a wasp comes to the frog cadaver to get meat. While the wasp is cutting a meatball from the cadaver, people substitute the meatball with the one they prepared previously. Then the wasp flies back to its nest, it runs after it by watching the mark of floss-silk on the meatball. In this way they can easily find wasp nests.

The nest of the wasp is built underground. People light firecrackers near the entrance of the nest. Soon the nest is filled with smoke, and the wasps are paralyzed. Then, people dig out the nest and collect the wasps while they are motionless.

Un Mitsuhashi (1963), also mentioned maguey worms but by another name, saying that people in the United States are eating fried "gusanos" [=maguey worms] with relish. "Close to the Mexican border, 'gusanos' are served as thirst-producers at cocktail parties. In recent years Mexico has been canning and exporting 'gusanos' and they may now be purchased in the better delicatessen and department stores of our larger cities. They are advertised as "delicious delicacies, especially with cocktails."
The wasp is a protein-rich food and contains B-group vitamins and iron, 10 times as much as ordinary food. For the above reason, it is supposed to stimulate hematoipoiesis. The old Chinese Pharmacopoeia said that wasps are effective in curing damages to internal organs and in preventing people from getting old when the wasps are administered continuously.

People in Nagano Prefecture have developed an interesting method for collecting the wasp. First they catch a frog. They

**EDITOR'S CORNER**

The kind of delay that sometimes (like very often) occurs in the international mails delayed receipt of the "Program Profile" intended for this issue of the Newsletter. The lead article on availability (or lack) of imported products in the United States was put together to fill the unexpectedly open space.

We are indebted to Dr. D. L. Ragge of the British Museum (Natural History) for sending a copy of the new reprint of Vincent Holt's 1885 booklet, *Why Not Eat Insects?* See page 3.

The Declaration of Belen (page 5) should be of interest to readers. It is the indigenous peoples of the warmer climates who have made, and continue to make, the greatest use of insects as food, and these are the populations for whom edible insects continue to be nutritionally important. Not only is the well-being of these populations important per se, but edible insects are not an insignificant part of the biological and genetic diversity that is threatened by continued destruction of tropical forests and other fragile ecosystems and the consequent extinction of plant and animal species. It is becoming increasingly apparent on the ecological front that, even in the short run, we who are geographically removed from the tropics can no better afford the loss of these global life-sustaining resources than can the indigenous peoples who are already bearing the brunt.

As Volume 1, No. 2 of the Newsletter goes into the mail, completed Address Forms have been returned by somewhat fewer than half of those to whom Volume 1, No. 1 was sent. We presume that individuals who have not responded fall into one of four categories: 1) Not interested, 2) Newsletter was sent to an outdated address, 3) Deceased, or 4) Procrastinating. If you are among the procrastinating and interested in receiving the Newsletter, but haven't returned the Address Form (page 7), please do so. It is the only way we have of verifying your interest. It is presently planned that the 1989 Newsletter will be mailed in March, July, and November, and that the July issue will either consist of, or be accompanied by, a Directory listing the names of persons who have an interest of some kind that is related to insects as food or animal feed. We want to include in the Directory only the names of those whose interest and address have been confirmed. Also, costs will eventually become a factor: printing costs for the Newsletter are approximately $0.35 per copy, to which must be added postage of $0.25 to U.S. addresses and $0.63 to many overseas addresses. Thus, to make room for new recipients (there have been more than 100 new requests) it will be necessary to drop from the mailing list the names of those who have not confirmed their interest before the next mailing. GRD

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**The Food Insects Newsletter**

**BOOKS**

*Why Not Eat Insects?*

Vincent M. Holt, E. W. Classey, Ltd. 1885.99 pp. Reprinted 1983 with an introduction by Lawrence Mound. British Museum (Natural History), Cromwell Road, London SW 5BD. (Paperback, price £3.95; available in the U.S. from International Specialized Book Services, 5602 NE Hassalo St., Suite 45, Portland, OR 97213, $7.95 plus $2.50 for shipping.)

In the introduction of this reprint, 100 years after the original printing, Lawrence Mound, the Keeper of Entomology at the British Museum (Natural History) suggests that "Why Not Eat Insects?" is not just a fascinating Victorian book, full of humour and ideas, it is also an interesting - indeed, profound - question about human behaviour." Mound observes that food habits in Britain are increasingly adventurous, and "perhaps the time is now ripe for insectivory to invade Chelsea..."

Vincent Holt is extraordinarily forthright in his promotion of insects as food. The title of his little book puts the question bluntly, "Why Not Eat Insects?" Then, he summarizes the reasons for eating insects. The herbivorous insects (the only ones he recommends) are clean-feeding compared to the lobster, crab, eel, and pig: "The lobster, a creature consumed in incredible quantities at all the highest tables in the land, is such a foule fodder that, for its sure capture, the experienced fisherman will bait his lobster-pot with putrid flesh or fish which is too far gone even to attract a crab" (p. 12). Relative to aesthetic appearance, Holt says (pp. 18-19), "As things are now, the chance catapiller which, having escaped the careful eye of the scullery-maid, is boiled among the close folds of the cabbage, quite spoils the dinner appetite of the person who happens to receive it with his helping of vegetable, and its loathsome (?) form is carefully hidden at the side of his plate or sent straight out of the room, so that its unwonted presence may no further nauseate the diners. Yet probably these same people may no further nauseate the diners. Yet probably these same
The flock would not be long in following.” Holt states that chemical analyses indicate that insects

...
strongly urge action as follows:

We, members of the International Society of Ethnobiology, biological diversity - that native peoples have been stewards of nearly 99% of the world's species, both plant and animal, are threatened with extinction; - tropical forests and other fragile ecosystems are disappearing; - many species, both plant and animal, are being ignored by agricultural scientists aimed at increasing the quantity and quality of food supplies, insects are as studiously ignored as are other sources of animal protein" (quoted by Catherine Philip, Amer. Bee Jour. 100:444, 1960). Although there is indeed a feverish pitch of activity by food and agricultural scientists in the United States, much of it committed in the name of scientific progress, the earth's increasingly apparent vulnerability to ecological abuse, much of it committed in the name of agricultural progress, we can increasingly recognize the validity of predictions such as one by the late Professor Brian Hocking: "We have about 50 more years of steaks and then perhaps we'll have to explore other sources of animal protein." 

Through millennia of experience, traditional and indigenous societies have developed their respective scientific/cultural systems, which were shown during the Congress to offer new ideas and models for sustained, ecologically-sound development and conservation. These knowledge systems form the basis of one of the greatest treasures of the planet, genetic resources. Indigenous peoples were shown to be the "in situ" guardians of nearly 99% of all of the biological diversity of the planet, yet are not recognized nor adequately compensated for these vital services. Members of the Congress emphasized that the remaining 1% of genetic diversity preserved in "ex situ" germplasm banks is held under precarious conditions that cost an estimated 1 billion US dollars per year to maintain.

The Inaugural Assembly of the International Society for Ethnobiology, formed during the Congress, issued its first official document, "The Declaration of Belem," articulated as follows:

As ethnobiologists, we are alarmed that:

SINCE
- tropical forests and other fragile ecosystems are disappearing;
- many species, both plant and animal, are threatened with extinction;
- indigenous cultures around the world are being disrupted and destroyed;

and GIVEN
- that economic, agricultural, and health conditions of people are dependent on these resources;
- that native peoples have been stewards of nearly 99% of the world's genetic resources, and
- that there is an inextricable link between cultural and biological diversity,

We, members of the International Society of Ethnobiology, strongly urge action as follows:

1) henceforth, a substantial proportion of development aid be devoted to efforts aimed at ethnobiological inventory, conservation, and management programs;

2) mechanisms be established by which indigenous specialists are recognized as proper authorities and are consulted in all programs affecting them, their resources, and their environments;

3) all other inalienable human rights be recognized and guaranteed, including linguistic identity;

4) procedures be developed to compensate native peoples for the utilization of their knowledge and biological resources;

5) educational programs be implemented to alert the global community to the value of ethnobiological knowledge for human well being;

6) all medical programs include the recognition of and respect for traditional healers and the incorporation of traditional health practices that enhance the health status of these populations;

7) ethnobiologists make available the results of their research to the native peoples with whom they have worked, especially including dissemination in the native language;

8) exchange of information be promoted among indigenous and peasant peoples regarding conservation, management, and sustained utilization of resources.

The Food Insects Newsletter

from page one

"A favorite food throughout non-European origin and was, presumably willingly to honor the preferences of their palates just as he wanted his own preferences honored. On the other hand, times change.

Certainly, there is an abundance of testimonials expounding the palatability of various insects when properly prepared. I will mention only one here. Hocking and Matsuzawa (1966) subjected bee brood, prepared by shallow frying in butter or deep-fat frying in vegetable cooking fat, to an informal taste panel in Canada and reported: "Most reactions were favourable and some were eulogistic; initial prejudice proved easier to overcome than we had expected. When the tasters was aware of the wide use of insects as food in Cultures Of Southeast Asia from eastern India and Burma to Vietnam and southern China is now imported and sold (as whole bugs, paste, or alcohol extract known as 'Mangnada essence') in Southeast Asian community food shops in San Francisco, Oakland, and Berkeley (Pemberton, Pan-Pac. Entomologist
were asked to compare the material to some more familiar food, those most commonly mentioned were walnuts, pork crackling, sunflower seeds, and rice crispies.” Joseph Alsop, in a Saturday Evening Post review of a Tokyo restaurant, mentioned that he very much enjoyed the appetizer of fried bees, the flavor being "halfway between pork crackling and wild honey.”

The intent here is not to make or remake the case for promoting greater use of insects as food in the United States, Canada and Europe. Scores of respected western writers, both scientists and others, from the ancient Greeks onward have come down on the affirmative side of this question. Aristotle himself partook of cicadas and wrote (3rd century BC) that it is the last-instar nymph that "tastes best." One can partly agree and partly disagree with the statement by C. H. Curran in 1939 (Natural History 43:84-89): “During the past few years there have been a number of people who have suggested that we should eat insects. They are probably seeking notoriety or being facetious. Some of them have gone so far as to publish menus. There is no 'should' or 'should not' about the advisability of people eating insects. If they wish to do so there is no reason why they should not, since there are hundreds of different kinds that are perfectly edible. However, it is absurd to urge upon a people blessed with a superabundance of good, delectable food, the advantage of eating something which is likely to prove less agreeable to the palate than the things to which we are now accustomed.”

Curran was not personally squeamish about eating insects, in fact, he liked to point out, and sometimes demonstrate, that we unknowingly eat many of them with our regular food. He

64:81-82, 1988). Such products from many lands might become an important new dimension in international trade if we Americans can learn to recognize and appreciate insects as the food resource that they deserve to be. They might also serve to create a whole new class of alternative crops for our hard-pressed small farms, alternative crops that are completely compatible with the principles of sustainable agriculture.

Secondary benefits of a more relaxed attitude by Americans might include a reduced zealousness in the cosmetic use of pesticides on our food crops. But these are other stories. In the meantime, any information that this article may elicit on the present availability of commercial food insect products in the western world will be printed in the next issue of the Newsletter.

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