

Wider aspects of a career in entomology.

24. Japan, part 3

Hugh V. Danks

This series of articles outlines some ancillary aspects of my entomological career. The approach includes information about insects and their environments, conclusions about scientific activities and their setting, and general observations. This article includes further details of my visits to Japan and cooperation with Japanese colleagues, especially during a longer stay in 2004–2005.



My cooperation with Japanese entomologists culminated in a transfer of work to Japan for 19 weeks in the winter of 2004–2005. My wife Thelma was able to accompany me. The opportunity was organized by Professor Hisaaki Tsumuki (Figure 1).



Hugh Danks

Figure 1. Professor Hisaaki Tsumuki, photographed in 2005.

The detailed Japanese administrative requirements for my visit called for even a summary of my elementary school career—which I could scarcely remember! Several other challenges of administration and logistics had to be met after arrival.

I was a visiting foreign professor in Prof. Tsumuki's laboratory at Okayama University's Research Institute for Bioresources¹, located at Kurashiki (see Figure 2). My work focussed on insect seasonal adaptations, and included lectures presented there and elsewhere. The visit also afforded opportunities to learn more about the country and its scientific establishments. Stemming from other contacts, especially during that sojourn, a brief visit to Kyoto followed near the end of 2005.



Hugh Danks

Figure 2. Location of Kurashiki and other places mentioned in this article. Base relief map from Bourrichon (CC BY-SA 2.0).

¹ Reorganized in 2010 as the Institute of Plant Science and Resources.

Danks, H.V. 2023. Wider aspects of a career in entomology 24. Japan, part 3. (pp. 1–10, 18 May 2023)

- Available at [Google Drive 24](#) -

All articles in this series are listed on the last page

The journey to Kurashiki was difficult because, not knowing what to expect, we had brought too many clothes and had far more baggage than is usual or convenient in Japan.

People there travel remarkably light, bringing just one set of fast-drying garments for a stay of several nights, for example. Minimal baggage is a great convenience during journeys on crowded buses and trains, and when making transfers that frequently involve flights of stairs, escalators, or city streets. When we finally arrived in Kurashiki, our host met us at the station and saw the heavy suitcases and packs. “Too many substances,” he said.

Japan has many pests of rice, fruit, other agricultural crops, and forests. The fields of most farmers are small, with potential implications for the impact of insect pests. The prevalence of small holdings contributes to a relatively high price for rice. However, the Japanese declare that foreign rice, though cheaper, is not nearly as good, a judgement that has both cultural and economic benefits.

Prof. Tsumuki’s group at the Institute (Figure 3) aimed to assist pest control through research projects on the cold hardiness of the rice stem borer, the physiology and molecular biology of diapause in corn earworm, the analysis of insecticide resistance in diamondback moth, and the development of repellents for fruit-piercing moths.

My options for experimental work proved to be severely restricted. It was winter, so work on living insects was not possible. Moreover, local colleagues understood English much less well than would have been expected from earlier communications by email. Nevertheless, I tried to assist where possible, and in particular was involved in a paper reporting the role of aquaporins in cold hardiness (mentioned in article 16). Instead of experimental work, therefore, I wrote two review papers, on cold hardiness and on life-cycle patterns, for the Japanese English-language journal *Applied Entomology and Zoology*.

A common way to help local colleagues, including those outside the entomology group, was to review their draft manuscripts. This work involved as much editing of English as assessment of scientific content, but I was pleased to do it, given the difficulties of writing in a second language. However, particular care was required when making suggestions about the content, because many people gave undue deference to my reviews. One wrote that he “would make” the suggested changes.



Research Institute for Bioresources

Figure 3. Members of the entomology laboratory outside the entrance to the Institute in 2005.



Okayama University

Figure 4. Aerial view of the Research Institute for Bioresources, Kurashiki, and its grounds. The area shown measures about 200 m × 150 m. Research fields to the left are not shown. The office I used was located near the letter “A” on the main building.



Hugh Danks

Figure 5. Interior courtyard of the Research Institute.

Figure 4 shows the campus at Kurashiki during the summer. Figure 5 shows the interior courtyard during the winter. An office for visiting scientists (Figure 6) is located in the main building.



Figure 6. Inside the Research Institute: The office used by visiting scientists (top) and the corridor outside it.

up to end on the day of the return flight, meaning that I would not be going in to the Institute that day. It was not feasible to change the flight (which would have cost thousands of dollars), so a new contract had to be drawn up for one day less. Also, as the duly revised end date approached, a detailed inspection of our accommodation was required to ensure that nothing had been damaged.

Social events, such as some meals, included others from the laboratory (e.g., Figure 8). A much larger event, an end-of-year party for everyone at the Institute, was held in a local hotel. I had been in Kurashiki for several weeks by then, and had been introduced at a faculty meeting, but the opportunity was taken to introduce me more widely. However, that intention was not communicated to me. Suddenly, during the meal, my dining companion ushered me to the front of the room

Each morning, every staff member had to stamp a ledger in the main office with their personal seal, to show that they were present. I was included in this protocol, and so the relevant stamp (known as a *hanko*) was designed for me (Figure 7).

There were many strict and detailed procedures of this sort, and researchers seemed particularly wary of the “Administrative Officer”. During my stay, a visiting postdoctoral fellow used the Internet in an unauthorised way, potentially exposing the Institute’s computer system to malware. This transgression was punished by removing computer access from everyone in the laboratory for one day—although advance notice was provided.

Travel expenses were scrutinized with considerable diligence. The timing of my bargain flights was approved before booking, but the contract for my work had been drawn

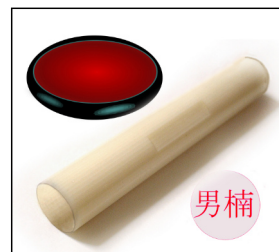


Figure 7. *Hanko* (personal stamp), ink pad, and (enlarged at lower R) the author’s mark. The first character is read *dan* (meaning male), and the second *kusu* (camphor tree). Because certain vowels, including u here, are not voiced between or after certain consonants, the characters can be read *dank’s’*.



Figure 8. A restaurant meal in Okayama, including entomologists from the Institute.

and told me on the way that my formal remarks would follow a brief introduction. Proper thanks, appreciation, and other more substantial comments would be necessary, but I had been taken forward just after putting a giant prawn into my mouth—one that was delicious but extremely chewy. The audience must have wondered why my jaws were moving so frantically during the introduction. Later, everyone relaxed, and there was a session of karaoke. Many students participated, along with a few others (e.g., Figure 9).



Figure 9. Author Hugh Danks performing karaoke at the Institute's end-of-year party.

Anon



Figure 10. Kurashiki main street seen from the railway station.

The town of Kurashiki (Figures 10, 11) was a pleasant place to stay. It is not too large (population about 470 000 in 2005), and has a historical quarter with centuries-old buildings and shops organized around the main canal (Figure 12). There are also museums and other points of interest. In contrast, nearby is a major industrial complex on the inland sea (Figure 13).



Figure 11. Older residences in Kurashiki, with more recent buildings in the background.



Figure 12. Canal in the historical quarter ("Bikan") of Kurashiki.

Hugh Danks

In standard Japanese, the name would be pronounced ku-ra-sh'ki, but the residents say ku-ra-shi-ki. The latter was needed for conversations there, but the standard form was better understood when buying return train tickets elsewhere.

The town offers a full range of stores outside the historical area. Some are distinctive. Informal bars, which serve various Japanese food specialties as well as alcoholic drinks, are marked by a red lantern hanging outside. The 100-yen stores—similar to North American dollar stores but with some goods of better quality—were particularly useful to obtain small items needed for our stay. Many Japanese, like some of the graduate students I met, appear to be addicted to shopping in these places.

Hugh Danks

Hugh Danks

A striking feature of Japan is the abundance of vending machines. They are installed on street corners, at train stations, and elsewhere. The machines are never vandalized, and therefore a full range of products, even beer, is available. Coffee (in cans) can be purchased hot or cold. A vending machine in the Institute (patronized regularly by me!) sold good coffee in a variety of brews. Many of them bore names in English, including highly caffeinated versions such as “Morning Shot”.

Recycling of empty containers is strongly encouraged. One graduate student who guided me on a tour was greatly upset that a soft-drink vending machine in a park was not accompanied by a container for recycling the cans.

Our accommodation was a rented apartment in a building on the Institute grounds (Figure 14)², owned by the university. That arrangement was valuable, not only because it was convenient for work, but also because it is very difficult for foreigners to obtain rented accommodation in Japan. Many landlords are wary of such tenants. Moreover, the intricate requirements normally include an extensive application form, a Japanese co-signer (guarantor), passport details, proof of establishment (such as an official certificate of eligibility, letter of employment, and so on), and a large initial payment. That sum includes not only rent, amounts for fire insurance, brokerage fees, and a refundable security deposit, but also a non-refundable payment to the landlord termed “gratitude money” or “key money”.

The apartment was more than big enough for the short stay³. It was unfurnished, and so we rented items ranging from a refrigerator, stove, and washing machine to a table and chairs, and bought items ranging from pots and pans to towels and bedding⁴.



Hugh Danks

Figure 13. Mizushima industrial complex. More than 200 companies are established at this chemical industry complex, which occupies about 2 500 hectares along the Seto Inland Sea.

The lights of the complex at night are supposed to be one of the noteworthy “sights” of Japan!



Hugh Danks

Figure 14. Apartment building on the grounds of the Institute. This building is also visible in Figure 4, at back right.

² Typical Japanese addresses are organized into numbered city districts (*chome*). Within a district, each city block (*banchi*) is numbered, and so is each building (*go*) in a block. Therefore (written in Japanese), “3-*chome* 8-*banchi* 5-*go*-103” [or just 3-8-5-103] would be apartment 103 in building 5 in block 8 in district 3. There is no street name, and block and building numbers lack any consistent spatial logic because they were assigned in the order of registration and development respectively. Strangers find navigation difficult...

³ Most accommodation is much smaller in Japan than in North America, partly reflecting the high population and limited resources. For example, a university would assign only a modest apartment, with limited storage space, even to a tenured senior professor. A Japanese graduate student who spent a period studying in Canada told me she had been unnerved by all the unaccustomed space in her accommodation.

⁴ Furnished apartments are so expensive that it is much cheaper to rent an unfurnished one and rent or buy everything required to furnish it.

Prof. Tsumuki’s assistant, Mr Yohei Izumi (Figure 15), rendered substantial assistance. He created my *hanko* (cf. Figure 7), and made other arrangements. He also provided me with a bicycle. Bicycles in Japan are marked with registration numbers, and it is unlawful to possess one that is not appropriately registered (even if it has been found abandoned, for example).

Bicycles are in extremely common use, and often are ridden on the sidewalks—although theoretically not allowed in many circumstances. Therefore, pedestrians walk compactly in a straight line so that no cyclist is impeded. Our initial habit was to “walk wide” and meander, so we had to adopt the proper behaviour.

The rooms of the apartment (except the kitchen) were equipped with tatami mats, so cheap carpets from department stores (one of which was called “Megamart”) were purchased to protect the living area. Those stores were a couple of kilometres away, but my bicycle could be ridden there, and pushed back with larger purchases. The bicycle was also essential for frequent visits to the closest supermarket, reached along a circuitous route on narrow lanes beside the network of small canals that run through the town.

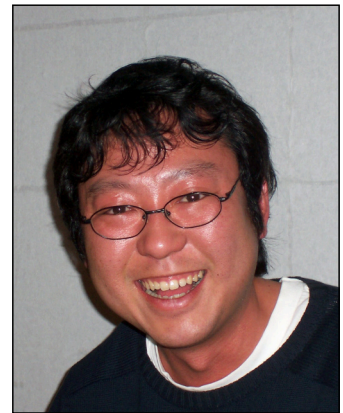
We cooked for ourselves, though some “Japanese” dishes were undoubtedly modified in unorthodox ways. A minor but useful discovery was a characteristic type of sink strainer that effectively holds back left-over rice grains rinsed from dishes, an essential feature in a country where rice is the major staple. The standard North American strainer would be ineffective.

Fish in particular were readily available. However, a colleague raised on the coast, where same-day catches were available straight from the boat, declared that fish from supermarkets is virtually inedible, because it is “one (or even two!!) days old.” Day-old fish seemed wonderfully fresh to me compared to some that is sold in Canadian supermarkets.

We purchased prepared food on few occasions—notably at Christmas, when (given the cost of a scrawny chicken) we indulged in a generous assortment of sushi and sashimi.

As already noted, recycling is taken seriously in Japan. It is highly regimented, because space for landfill is so limited. Complex instructions (Figure 16) showed how and when specific items were to be brought to the local recycling shed, which was locked outside these times. Everything was carefully organized by type; newspapers had to be bundled; and so on.

Two of the items we considered essential for the apartment might have been regarded as luxuries for spoiled Westerners, and had to be installed. One was a rented wall-mounted electric heater in the main room, keeping us warm every evening⁵. In Japan, houses are generally poorly insulated, and are often opened to the outside to air them out in the humid



Hugh Danks

Figure 15. Mr (now Dr) Yohei Izumi, photographed in 2005.

Tue 火	水切りを十分に 乾かす	なるべく小さくして 捨てる	古布類 古靴 古履 古杖	洗剤用のポリ、ビニール容器、 ポリ(カケツ、タライ、クッション)、 ヒヤステア、カセットテープ、 ヘルメット、貝殻等
Fri 金曜	プラスチック類 紙類	空缶缶 空ビン	スプレー缶、ガスボンベは ガスを出しきって穴を刺ける	ナベ・フライパン ヘア・スプレー スプレー缶 空缶缶 (アルミ・スチール) 缶類類 (粗大ごみを除く) 空きびん (空きびん、くずびん)、ガラス類 古紙類 (新聞紙、雑誌、ダンボール等) 牛乳パック (500ml以上) 古布類 (衣類、布切れ等)
第4 木曜	ガラス類 陶磁器類 金属類 プラスチック類 紙類	古布類 古靴 古履 古杖	スプレー缶、ガスボンベは ガスを出しきって穴を刺ける	ナベ・フライパン ヘア・スプレー スプレー缶 空缶缶 (アルミ・スチール) 缶類類 (粗大ごみを除く) 空きびん (空きびん、くずびん)、ガラス類 古紙類 (新聞紙、雑誌、ダンボール等) 牛乳パック (500ml以上) 古布類 (衣類、布切れ等)
第4 水曜	ガラス類 陶磁器類 金属類 プラスチック類 紙類	古布類 古靴 古履 古杖	スプレー缶、ガスボンベは ガスを出しきって穴を刺ける	ナベ・フライパン ヘア・スプレー スプレー缶 空缶缶 (アルミ・スチール) 缶類類 (粗大ごみを除く) 空きびん (空きびん、くずびん)、ガラス類 古紙類 (新聞紙、雑誌、ダンボール等) 牛乳パック (500ml以上) 古布類 (衣類、布切れ等)

Hugh Danks

Figure 16. Rules for residential garbage disposal. Without the translations kindly added by a colleague, this document would have been incomprehensible to me.

⁵ Normal temperatures in Kurashiki for the period we were there average about 4°C as the daily low and 12°C as the daily high, and about 2°C and 9°C for the month of January.

Television programming also included the “Mozart channel”, broadcasting only works by that classical composer. It provided superior music that we often played in the evening.

Occasionally, a Sumo tournament would be shown. This cultural specialty has precise procedures and very strict rules. The wrestlers train intensively in tightly controlled “stables” (currently about 40 for professional sumo). Weight gain is one of the requirements. A meal during one of my earlier visits was at a restaurant specializing in *chanko nabe* (sumo stew), a hearty meal with various ingredients traditionally eaten by sumo and served in massive quantities, along with equally massive portions of rice, as part of the weight-gain diet.

Once we were well established in Kurashiki, the absence of opportunities for experimental work allowed me to accept many invitations to other places in order to discuss research and deliver lectures. Some leisure travel was also possible.

Unaided travel in Japan is facilitated by an effective rail transport system, supplemented by bus routes. Some cities (like Tokyo) also have a subway network and some towns (like Kochi) have trams, both of which are efficient for high-density populations. Aircraft fly frequently between major centres.



Figure 20. Types of Japanese trains: L to R, local; limited express; and two types of super-express (shinkansen).

There are several kinds of trains for local and long-distance use (e.g., Figure 20), all of which run meticulously on time. Each kind stops at a different proportion of stations on the route. The shinkansen run on dedicated lines and stop at few stations, and the fastest of them (like the highly streamlined train in the figure) can reach 300 km/hr.

Booking is relatively easy online: travel options in English on the website of Japan Rail are exemplified in Figure 21. In addition to the base fare, a second ticket (shown here under “charge”) is required to reserve a seat on the shinkansen. However, on my first solo trip I was not aware of this and did not walk through the train to the general carriage, but stopped where there were many vacant seats. After the journey began, the staff had to deal with my lack of familiarity with both procedures and language.

Course	Departure/Platform	Arrival/Platform	Total money	Required time	Distance	Transfers
The first	KURASHIKI(09:38)	TOKYO(13:30) 14	¥17060	3hours 52min	748.8 km	1
The second	KURASHIKI(09:58)	TOKYO(13:46) 19	¥17060	3hours 48min	748.8 km	1
The third	KURASHIKI(10:13)	TOKYO(14:06) 16	¥17060	3hours 53min	748.8 km	1
The fourth	KURASHIKI(10:26)	TOKYO(14:30) 14	¥17060	4hours 04min	748.8 km	1
The fifth	KURASHIKI(10:47)	TOKYO(14:46) 17	¥17060	3hours 59min	748.8 km	1

Transfer Time	Required time	Station/Line/Train name	Fare	Charge	Time table	Info
09:38		KURASHIKI				
%	15 min	JR Sanyo Line				
13 min	09:53 10:06	OKAYAMA	¥10190			
#	204 min	SHINKANSEN NOZOMI 8		Reserved seat ¥6870		
13:30		TOKYO				

Figure 21. Summary (for travel from Kurashiki to Tokyo) on the online booking system of Japan Rail, from which routes can be selected and booked.

Because it was winter, the journeys were restricted to southwestern Japan. Winter travel farther north can be unpredictable. Indeed, Prof. Masaki wanted to come to my 3-hour “Saturday Seminar” in Okayama (about assessing the duration of insect life cycles) but could not do so because frequent heavy snows in Hirosaki (about 900 km northeast of Okayama) had cancelled many scheduled travel services.

In Japan, a returning traveller is expected, even after domestic travel, to bring back gifts (*omiyage*) for friends, family, and co-workers—all of them! Typically, such an obligation to colleagues is met by purchasing a package of small snacks, such as confectionery, that are characteristic of the region visited. Train stations, for example, have shops dedicated to selling these items (Figure 22). Many of the products are extraordinarily sweet. Airports and larger tourist areas cater to the obligations of returning travellers by selling a wider range of items⁶.

Despite the homogeneity of social expectations like this, there were many different personalities among the travellers, just as elsewhere in the world. For example, some tourists avidly explored the views and places of interest, but others checked off rather than explored them. More than once we would be dawdling through a museum learning about the artifacts, when members of an organized, or even family, tour would march rapidly down the centre of the room, barely glancing at the displays, and thus “see” the museum that was on their itinerary. This behaviour did not seem to depend on a lack of time to acquire *omiyage* to take back⁷.



Jorge (CC BY 2.0)

Figure 22. Display of items for sale as the gifts (*omiyage*) that returning travellers are expected to bring back.

Apart from the sightseeing trips, my travels to other institutions in Japan for entomological presentations and discussions occupied more than three weeks. Those and other activities are referred to in the next article in this series.

⁶ Of course, a comparable presumed expectation in North America may result in the purchase in Canada of a cheap model birch-bark canoe, made (sometimes in China) for the tourist trade and uncritically supposed to represent native culture! Japanese *omiyage* are seen as a more weighty social obligation even towards acquaintances, and those for friends and relatives are chosen with particular care.

⁷ The approach reminded me of a parallel experience years ago in Canada. A family pulled up to a scenic overlook in Gatineau Park near Ottawa and piled out of the car, furiously taking photographs. Within seconds, everyone was being marshalled back to the vehicle, prompting one of the children to complain that he hadn't seen anything yet. “Shut up and get in the car,” said the father, “you can see the pictures when we get home.”

Hugh Danks retired in 2007 after many years as head of the Biological Survey of Canada. In that role, he helped to coordinate work on the composition and characteristics of the arthropod fauna of the country, and to summarize the results. In addition, his research studied cold-hardiness, diapause, and other adaptations to seasonality in northern regions.

This article, and images in it attributed to the author excluding those that show recognizable individuals (for which all rights are reserved), are published under Creative Commons licence [CC BY-NC-SA 4.0](https://creativecommons.org/licenses/by-nc-sa/4.0/).

Articles in this series: Danks – Wider aspects of a career in entomology

Nos. 21 onwards available at [Google Drive 21-](#). Linked at tinyurl.com/dankswider.

2023: [21. Further institutional adventures](#) (10 pp.); [22. Japan](#) (10 pp.); [23. Japan, continued](#) (8 pp.);
[24. Japan, part 3](#) (10 pp.).

Nos. 1–20 published in [Bulletin of the Entomological Society of Canada](#).

Also available at [Google Drive 1–20](#)

2018 (*vol. 50*): 1. Winter in Canada (pages 25–29); 2. A winter project (50–54); 3. The high Arctic (115–119); 4. The high Arctic, continued (173–178).

2019 (*vol. 51*): 5. Spring to fall research in Canada (25–30); 6. North Carolina (89–94); 7. Belize (153–158); 8. The bug book and bug bottle (207–219).

2020 (*vol. 52*): 9. An interest in entomology (15–21); 10. Undergraduate activities (91–97); 11. An amateur in France (156–162); 12. Graduate studies in England (196–202).

2021 (*vol. 53*): 13. Graduate studies in England, continued (13–20); 14. University courses and teaching (78–85); 15. Scientific conferences (134–142); 16. Exploring insect cold hardiness (186–194).

2022 (*vol. 54*): 17. My introduction to Canada’s fauna and environments (11–20); 18. My introduction to Canada’s fauna and environments, continued (66–75); 19. My introduction to Canada’s fauna and environments, concluded (128–136); 20. Further field adventures (181–188).
