



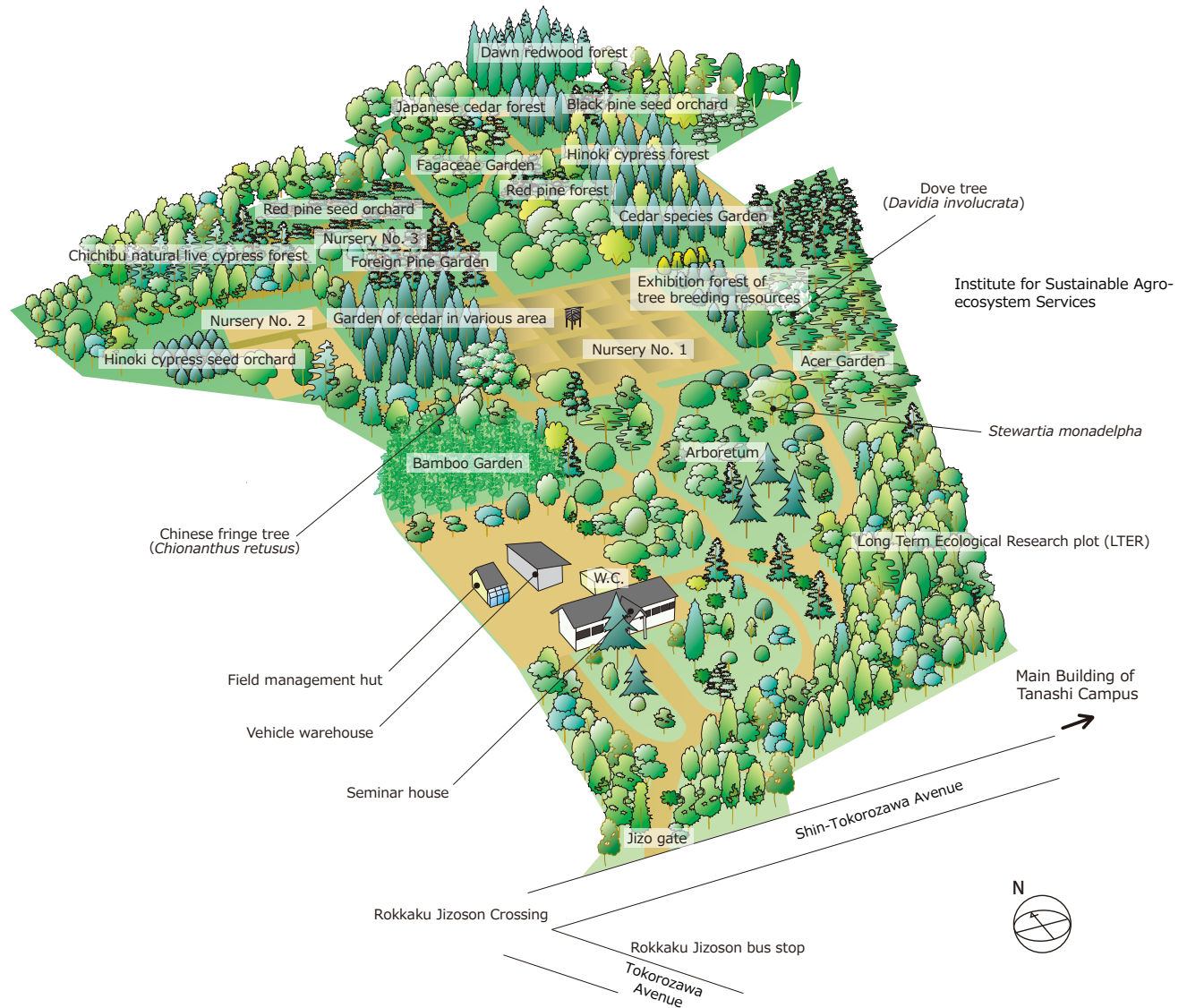
The University of Tokyo Tanashi Forest

2023

Graduate School of Agricultural and Life Sciences, The University of Tokyo



Guide map of The University of Tokyo Tanashi Forest



The Tanashi Nursery (total area of 8.3 ha), Department of Forestry, Faculty of Agriculture, Tokyo Imperial University, was founded in 1929.

Urban forest research on tree medicine (tree physiology, pathology, and urban tree management) is conducted at this University Forest, taking full advantage of the integrated field and laboratory facilities. It is also utilized as a training and research field for education on forest science and ecologically sound agriculture.

The forest is also open to the general public.
Open hours: 9:00 am to 4:30 pm (weekdays only)
Please complete the prescribed forms at the entrance of the Seminar House and follow the tour guidelines.

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URL <https://www.uf.a.u-tokyo.ac.jp/tanashi/>

The University of Tokyo Tanashi Forest

1. History and overview

The University of Tokyo Tanashi Forest (UTTF) was established in 1929 by the Department of Forestry Second Course (Laboratory of Silviculture) as the Tanashi Nursery, Department of Forestry, Faculty of Agriculture, Tokyo Imperial University (or Tama Nursery). Its origin can be traced back to a nursery of the Department of Forestry, established in 1893 in Komaba, which was the Faculty of Agriculture, Tokyo Imperial University, at that time. In 1956, the management and administration of the nursery was transferred from the Department of Forestry to the University Forest; in 1963 the name of the site was changed to Tanashi Experimental Site and the organizational structure was expanded. In 1982, the entire area was transferred from the Department of Forestry to the University Forest. In 2000, the University Forest was attached to the Graduate School of Agricultural and Life Sciences, with increased prioritization of graduate school education by the Faculty of Agriculture. Since establishment of the Institute for Sustainable Agro-ecosystem Services affiliated with the Graduate School of Agricultural and Life Sciences Faculty of Agriculture in 2010, faculty and staff of the Tanashi Experimental Site also work at this institute. In 2011, the name of the Tanashi Experimental Site was changed to the UTTF as part of an organizational restructuring of the entire University of Tokyo Forests, and the formal name of the site became the University of Tokyo Forests, Graduate School of Agricultural and Life Sciences, The UTTF.

There are also laboratories and field sites at the Institute for Sustainable Agro-ecosystem Services and Asian Research Center for Bioresource and Environmental Sciences, Graduate

School of Agricultural and Life Sciences, The University of Tokyo at the Tanashi Campus, where the University of Tokyo Tanashi Forest is located, which forms a hub for research and education with the Graduate School of Agricultural and Life Sciences in Nishitokyo.

2. Location and environmental characteristics

The UTTF is situated conveniently in Nishitokyo, the Tokyo metropolitan area, about 1 hour from the Hongo campus of the University of Tokyo. This site is used by many faculty members and students as a research and education field site. The Tanashi Forest is located almost in the center of the Musashino area and, although the surrounding forests have been lost to residential development, vestiges remain of the secondary forest, which is characteristic to this area. This area is considered by the local residents to be a precious green oasis in the city.

The forest's total area is about 8.3 ha, with an altitude of 60 m. It is located on flat terrain in the Musashino terrace (Musashino side) of the Musashino Plateau. Its geological features are made up of a gravel bed (Musashino gravel layer) topped with a volcanic ash layer of 6 to 8 m thickness (loamy layer of the Kanto district). Black soil, formed from volcanic ash, is distributed on the loamy layer with a thickness of 50 to 60 cm. An annual mean temperature of 14.8 °C and annual mean rainfall of 1,575 mm were recorded from 2011 to 2020.

3. Forest characteristics

The Musashino forest has a long history of human intervention. Although the original vegetation communities only comprise a small part of the forest types, there are small

scattered areas of coppice (secondary forest) containing a mixture of East Asian hornbeam (*Carpinus tschonoskii*), Japanese snowbell (*Styrax japonicus*), Japanese zelkova, and Giant dogwood (*Cornus controversa*) within the Tanashi Forest, where the dominant trees are Japanese red pine, jolcham oak, and sawtooth oak (*Quercus acutissima*). There are also many shrubs and climbing plants, including Chinese sumac (*Rhus javanica*), Hamilton's spindletree (*Euonymus hamiltonianus*), Japanese angelica tree (*Aralia elata*), linden arrowwood (*Viburnum dilatatum*), Oriental bittersweet (*Celastrus orbiculatus*), and Japanese honeysuckle (*Lonicera japonica*), as well as a wide variety of herbaceous plants on the forest floor, representing the variety of flora that grow in Musashino. There are also sample forests (foreign varieties of pine, cedar, and bamboo), an arboretum (approximately 244 species, including 63 species of coniferous trees and 181 species of broad-leaved trees), a research forest (improved poplar trees, Dawn redwood, bamboo-leaf oak [*Quercus myrsinifolia*]), and a seed orchard and scion garden. The forest, which occupies two-thirds of the total area is now a valuable urban forest.

4. Facilities

① Nursery

The Tanashi Forest was originally a forest nursery attached to the Laboratory of Silviculture, and has thus been used for student practice and research on plant nursing since its inception. The nurseries occur in three locations; Nursery No. 1 is 0.52 ha, Nursery No. 2 is 0.14 ha, and Nursery No. 3 is 0.18 ha, corresponding to a total area of 0.84 ha. Of these, Nursery No. 1 is the most utilized for growing Japanese red pine, black pine



Photograph 1 View of the forest at the UTTF

The forest has the appearance of an island floating in the city.

The University of Tokyo Tanashi Forest

(*Pinus thunbergii*), cedar, and cypress seedlings for practice and research. Trees are also grown using cuttings and grafting, and various types of seedlings are grown for research.

② Laboratories

There are two locales that can be used as indoor shared-use facilities, the UTF Sample Preparation Laboratory and the UTF Laboratory. The Sample Preparation Laboratory is 57.2 m² and is equipped with one central laboratory bench without shelves and nine small incubators. The laboratory is maintained to be exclusively used for primary processing of field samples, breeding and culturing insects, etc. The UTF Laboratory is 86.6 m² and is equipped with two central benches with shelves as well as 3 incubators, 1 clean bench, 1 autoclave, 2 dissecting microscopes, 1 fluorescence microscope, 1 freezing microtome, 1 PCR system, and a high-speed microcentrifuge. This laboratory is maintained to be used exclusively for microbial, molecular biology, and biochemical experiments.

③ Seminar House

Seminar House is a precious wooden building, built as the Tanashi Nursery office in 1932. Since then, it has been used as the office and laboratory for the Tanashi Experimental Site and UTTF. In March 2021, the office and laboratory functions were transferred to the main Tanashi building. Seismic retrofitting work was implemented the same year, and now the Seminar House is used as a lecture room and can be rented to the public for a fee.

5. Education

Given its history under the management and administration of the Laboratory of Silviculture, Forestry Department, the UTTF has always been used for forestry studies, in particular by students for practical training in the

field of plant nursing. The UTTF is now also used for practical training by other laboratories and universities, focusing on field experiments and observations. The UTTF also holds practical training for students in liberal arts courses, centered on hands-on activities in urban forests. The forests and nurseries are made available to undergraduate and graduate students, both from the University of Tokyo and outside the university, for research assignments focusing on related specializations and majors, and the students may also use the laboratories as appropriate. The UTTF sells seeds and seedlings of tree species, including Japanese red pine and black pine, as well as the branches and leaves of various standing trees, and also responds to requests for use of the forest for tree felling.

6. Research

The University of Tokyo Tanashi Forest has forests, including various research forests, and also maintains indoor and outdoor research facilities, such as nurseries and laboratories,



Photograph 3 Census of trees with Japanese Oak Wilt disease

Toothpicks are inserted into perforations of damaged Japanese oak trees (*Lithocarpus glaber*) to survey the number and location of the trees.



Photograph 4 University-Wide Experience Seminar
Students of "Experience and consider the present and future of forest guide volunteers" and the "Kids Tree Expert" Certification guided the Kids Tree Expert program as part of their practical training.

thereby providing a research environment that integrates field sites and laboratories for university and non-university researchers. Work is ongoing to improve the research environment and upgrade the equipment that underpins the research. In 2014, wireless LAN and power supply stations were newly installed. Data are collected daily, including meteorological data, flora and fauna, and historical data on forest land management. In addition to this research base, urban forest research is also promoted, as discussed below, making full use of the location of the forest.

① Research on urban forest planning

Information on existing urban forests is collected and organized to explore the functions required for new urban forests at the present and in the future. The research is aimed at formulating a plan to implement the necessary functions, establish an urban forest, and evaluate and verify the functions. Long Term Ecosystem Research (LTER) sites, which have been largely unmanaged since their establishment in 1992, are regarded as abandoned urban forests and are positioned as controls for the evaluation of functions. Measurement equipment is provided to facilitate research and use of the forests. The forest functions correspond to the ecosystem services, and their research requires collaboration with the adjacent Institute for Sustainable Agroecosystem Services, to evaluate the impact of these functions on agroecosystems.

② Research on urban forest management

This research will cover the management of urban forest density, pruning, and forest hygiene, and will also promote research on managing genetic resources, such as trees used for planting, propagation methods, and seedling growing methods. More specific examples include empirical research to verify the accuracy of tree



Photograph 2 Nursery No. 1

This is the nursery that serves as a base for research and education.

vigor determined non-destructively the through reanalysis after felling standing trees, and establishing propagation techniques for various trees, including landscaping and greening trees. Eradication measures need to be developed for Japanese Oak Wilt disease and pine wilt disease, which occurred sporadically around 2020, which require further scientific verification.

③ Research on urban forest utilization

This field promotes research on exploring unused resources, surveying the amount of resources, and developing utilization methods, particularly for urban forests. With the current trends in population aging, it is vital to find mechanisms to involve older people in the use and independent management of urban forests. It is also necessary to investigate how the interests of various stakeholders can be coordinated. Possible research topics could include harvesting, characterization, and sale of timber and non-timber products from urban forests, and research on learning, recreation, and volunteer activities in urban forests.

7. Extension

The UTTF holds public lectures in collaboration with various organizations, including “Kids Tree Expert” Certification, and conducts forest educational activities that are aimed at contributing to the local community, and supporting life-long learning through primary and secondary education. The forest is also used by many local elementary and junior high schools in extracurricular field excursions, and junior high school students are accepted for work experience. The premises are open to the public on weekdays, and open days are held on weekends/public holidays several times a year to exhibit the new spring growth or fall colors. Tens of thousands of people visit the forest each year. Signboards have been installed with QR codes to introduce academic information, as well as signs with emergency contact information indicating the person’s current location to ensure the safety of the public. The observation routes are inspected and maintained daily to ensure that there is no risk of fallen branches and, if necessary, aerial work platforms are used to remove hanging and dead branches. Recruitment of forest education partners (assisting forest-related classes for elementary and junior high school students) started in 2022.



Photograph 5 Complete enumeration

Changes in species composition and biomass for each forest type throughout the UTTF is surveyed every few years.



Photograph 6 Experiment in Basic Forest Science I

Practical training for students is implemented several times a year.



Photograph 7 Securing the safety of the tour route using aerial work platform vehicles

Hanging and dead branches are removed.



Photograph 8 UTTF publications

A book compiling the history and nature of the Tanashi Forest was published in March 2010 and is available for purchase.

The University of Tokyo Tanashi Forest

Spring

Common bluebottle
(*Graphium sarpedon*)



Gentiana zollingeri



Dove tree
(*Davidia involucrata*)

Sympetrum baccha matutinum



Autumn



Arboretum of Autumn Leaves



Dawn redwood
(*Metasequoia glyptostroboides*)

Marasmus pulcherripes



Summer

Jewel beetle
(*Chrysochroa fulgidissima*)



Scarlet bottlebrush
(*Callistemon speciosus*)

Snow-covered nursery



Winter

Arboretum in winter



Wintersweet
(*Chimonanthus praecox*)

User guide

Procedures for use

- Use for research and/or education

Please complete the required sections of the UTTF Research and Education Use Application Form (designated form) to use the UTTF for research and/or educational purposes. Please submit the form to the UTTF by the 15th of the month before the date you wish to use the forest facilities.

- Use for visits and/or studies

The general public may use the forest facilities for observation and learning from 9:00 am to 4:30 pm on weekdays (Monday to Friday, except for the year-end and New Year holidays and other public holidays). For groups of 9 or less, please fill in the details in the notebook on the table to the right of the Seminar House entrance. For groups of 10 or more, such as part of a class or elementary school, kindergarten, nursery school, or community group activity, submit the UTTF Visitor Use (Group) Application form (designated form) to the UTTF by the 15th of the month before the date you wish to use the forest facilities.

- Use of the Seminar House

Individual rooms of the Seminar House at the UTTF are available to rent for training, meetings, and similar activities. Anyone wishing to use the Seminar House should read the internal regulations for renting the premises and submit a Request to Use Seminar House Lecture Rooms (designated form) to the UTTF at least two weeks before the intended use date.

The designated forms can be downloaded from the UTTF website.

Contact details for usage inquiries

UTTF Faculty Office

Room 107, 1F Tanashi Main Building, 1-1-1 Midori-cho, Nishitokyo, Tokyo, 188-0002, Japan

TEL +81-42-461-1528 FAX +81-42-461-2302

Access

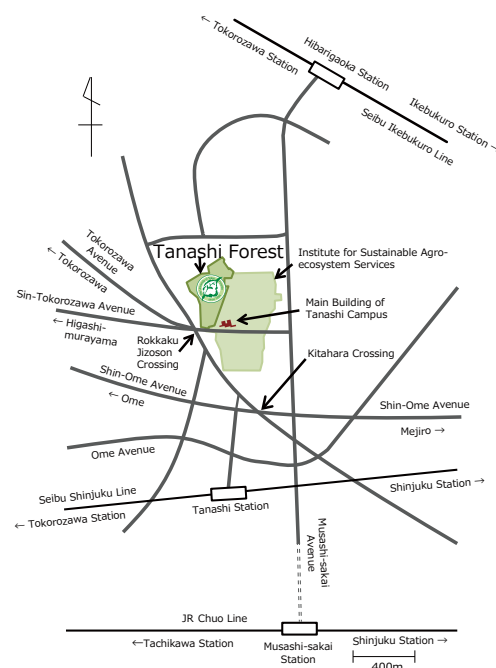
[Walking from the station]

- It is about a 20-minute walk from the north exit of Tanashi Station on the Seibu Shinjuku Line → Enter from the main gate of Tanashi Campus of the University of Tokyo

[Travelling by bus from the station]

- From the north exit of Tanashi Station on the Seibu Shinjuku Line, take the Seibu Bus bound for Hibarigaoka Station (Sakai 04) and get off at the Rokkaku jizoson-mae bus stop after about 10 minutes
 - From the South Exit of Hibarigaoka Station on the Seibu Ikebukuro Line, take the Seibu Bus bound for Musashi-Sakai Station (Sakai 04) and get off at the Rokkaku jizoson-mae bus stop after about 15 minutes
 - From the north exit of Musashisakai Station on the JR Chuo Line, take the Seibu Bus bound for Hibarigaoka Station (Sakai 04) and get off at the Rokkaku jizoson-mae bus stop after about 25 minutes
- Walk towards Hoya at the Rokkaku Jizoson intersection near the bus stop and walk about 5 minutes
Enter from the main gate of the Tanashi Campus of the University of Tokyo

* Groups of 9 or less only may enter the campus from the Jizo gate, which is about a 1-minute walk from the Rokkaku Jizoson intersection



Points to note

The UTTF is a facility for forest-related research and education. Please carefully read the following rules before visiting or using the site for study. We appreciate your understanding and cooperation.

<Prohibited activities>

- Eating, drinking, and smoking
- Use of picnic blankets
- Collecting animals and plants (including fallen leaves, acorns, and soil)
- Entry into areas of the forest outside the designated roads
- Touring the forest in a car or motorbike
- Getting into a car
- Bringing pets
- Unaccompanied children of elementary school age or younger

<For your safety>

The University Forest is a natural environment, thus you may encounter unexpected dangers. Please be careful of possible attacks by bees and crows, heatstroke, and falling branches.

List of Seminar House Usage Fees

Room name	Area (m ²)	Capacity (people)	Usage fee per hour (JPY)	Eating and drinking	Remarks
Lecture room	73	30	1,000	Permitted	The lecture preparation room and changing room are available. Wireless LAN is available.
Meeting room	58	24	1,000	Permitted	Wireless LAN is available.
Craft room	44	20	1,000	Not permitted	Changing room is available. Wireless LAN is available.
Administration room	23	3	—	Permitted	This room may be rented out when using the Lecture room, Meeting room, or administration room. It cannot be rented out by itself.



The University of Tokyo Forests,
Graduate School of Agricultural and Life Sciences,
The University of Tokyo



UTFs website



UTCBF: The University of Tokyo Chiba Forest
UTHF: The University of Tokyo Hokkaido Forest
UTCF: The University of Tokyo Chichibu Forest
UTTF: The University of Tokyo Tanashi Forest
ERI: Ecohydrology Research Institute
FIWSC: Fuji Iyashinomori Woodland Study Center
ARI: Arboricultural Research Institute
EO: Executive Office
EEC: Education and Extension Center
FDRC: Field Data Research Center

The University of Tokyo Forests, Graduate School of Agricultural and Life Sciences,
The University of Tokyo Tanashi Forest (UTTF)

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