Appendix. Detail information of each plot.

This material gives detail information of each plot: forest age, disturbance history, soil types, soil pH, bedrock, snow depth, Sasa as understory vegetation, maximum canopy height, site specific information for plot and traps, remarks (optional) and acknowledgements (optional). This material includes information which was described in Appendix of Ishihara et al. (2011). For definition of forest age classifications, see Ishihara et al (2011). Forest age or maximum tree age is the age in 2010 unless specified. Soil types based on the soil classification system of the Food and Agriculture Organization of the United Nations (FAO) (Dudal 1968), were extracted from the 1:20,000 scale soil map of the Land Classification Survey conducted by the Ministry of Land, Infrastructure, Transport and Tourism, Japan (http://tochi.mlit.go.jp/tockok/inspect/landclassification/download/index.html). In addition, Soil types based on the Classification of Forest Soil in Japan (Forest Soil Division 1976) were also shown, which are according to related literatures and personal observations of researchers. 'NA' means data not available. References with * are those conducted in the plot.

UR-BC1

Forest age: OG.

Disturbance: No record of human disturbance (Yoshida T. personal communication).

Soil type FAO: Humic Cambisols.

Soil type Forest Soil Division: Brown forest soil (Shibata et al. 2002).

Soil pH: 3.9−4.5 (Ozawa et al. 2001).

Bedrock: Andesite tuff-breccia (Shibata et al. 2002).

Snow depth: 2 m (Shibata et al. 2002).

Sasa (dwarf bamboo) as understory vegetation: Understory is covered by dwarf bamboo (Yoshida T. personal observation).

Maximum canopy height: 28 m (Yoshida T. unpublished data).

Plot & Traps: The plot size is 50×150 m (Fig. A1). The direction of Y-axis is 71° west from true north. Traps were not located on the corner of grid cells because the locations of traps were fixed before the grid were set up.

Remarks: Although 50 traps were installed from 1991, only data of 25 traps after 2004 were included in this data paper

Acknowledgements: We thank the staff of Uryu Experimental Forests of Hokkaido University for the field work.

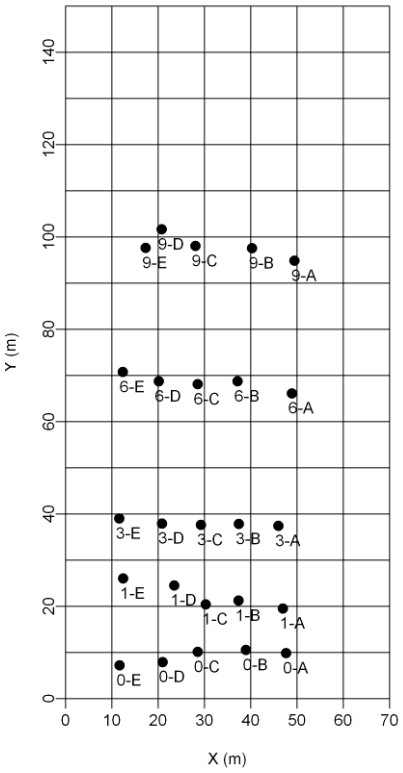

Fig. A1 Layout of the plot and locations of litter traps in UR-BC1.

AS-DB1

Forest age: OG. The forest is estimated to be more than 200 years old (Tashiro N. personal communication).

Disturbance: No evidence of human disturbance (Tashiro N. personal observation).

Soil type FAO: Humic Cambisols. Cambisols, according to the personal observation of Shibata H.

Soil type Forest Soil Division: Black soil (Shibata H. personal observation).

Soil pH: NA

Bedrock: Tuff layer, sandstone, shale (Ashoro Research Forest, Kyushu University unpublished data).

Snow depth: 0.7 m (Tashiro N. personal observation).

Sasa (dwarf bamboo) as understory vegetation: Understory is dominated by 0.4–0.7 m high *Sasa nippinica* (Tashiro N. personal observation).

Maximum canopy height: 25 m (Tashiro N. personal observation).

Plot & Traps: The traps were arranged in the standard manner (Fig. 2). The direction of Y-axis is 7° west from true north.

AS-DB2

Forest age: S. The forest is estimated to be about 80 years old (Tashiro N. personal observation).

Disturbance: The forest is a secondary forest regenerated naturally after clear cutting (Tashiro N. personal observation).

Soil type FAO: (Entic) Andosols. Cambisols, according to the personal observation of Shibata H.

Soil type Forest Soil Division: Black soil (Shibata H. personal observation).

Soil pH: 5.3–6.0 (Ashoro Research Forest, Kyushu University unpublished data).

Bedrock: Tuff layer, sandstone, shale (Ashoro Research Forest, Kyushu University unpublished data).

Snow depth: 0.7 m (Tashiro N. personal observation).

Sasa (dwarf bamboo) as understory vegetation: Understory is dominated by 0.4–0.7 m high *Sasa nippinica* (Tashiro N. personal observation).

Maximum canopy height: 25 m (Tashiro N. personal observation).

Plot & Traps: The traps were arranged in the standard manner (Fig. 2). The direction of Y-axis is 155° west from true north.

TM-DB1

Forest age: OG. About 270−340 years old (Igarashi 1987).

Disturbance: The forest regenerated after the volcanic eruption of Mt. Tarumae in 1669 and 1739 (Igarashi 1987). The forest was disturbed by strong typhoons in 1954 (Mishima et al. 1958) and

2004.

Soil type FAO: (Andic) Rhegosols.

Soil type Forest Soil Division: Shallow top soil (Hiura et al. 1998*).

Soil pH: 5.3−6.2 (Shibata et al. 1998).

Bedrock: Volcanic ejecta of 1−2 m depth (Igarashi 1987).

Snow depth: 0.5 m (Hiura et al. 1998*).

Sasa (dwarf bamboo) as understory vegetation: Understory vegetation is partly dominated by *Sasamorpha borealis* (Hiura et al. 1998*).

Maximum canopy height: 26.5 m (Ishihara M. personal observation).

Plot & Traps: The 1-ha plot is a part of a 9-ha permanent plot. Traps were arranged in the standard manner (Fig. 2). The direction of Y-axis is 31° west from true north.

Remarks: Leaf litterfall was sorted by species (Ishihara and Hiura 2011*) although the species-level data was not included in this data paper.

Acknowledgements: We thank the staff of Tomakomai Experimental Forests of Hokkaido University for the field work.

KM-DB1

Forest age: OG. Maximum tree age is about 1000 years old according to Suzuki et al. (2002*).

Disturbance: Canopy gaps and more infrequent, debris flows. No sign of human disturbance although selective cuttings were conducted at surrounding forests until 20−30 years ago (Masaki et al. 1999*; Suzuki et al. 2002*).

Soil type FAO: Residual Regosols.

Soil type Forest Soil Division: Gravel (large and sandy), brown forest soil (Masaki et al. 1999*).

Soil pH: NA

Bedrock: Igneous rock (green tuff and others).

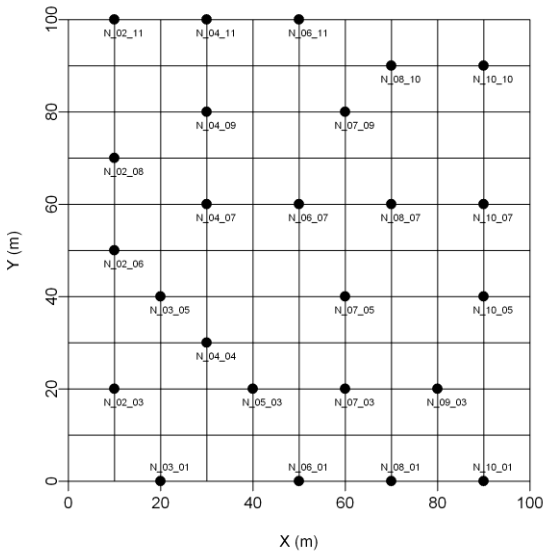

Fig. A2 Layout of the plot and locations of litter traps in KM-DB1.

Snow depth: 1.8 m (Suzuki et al. 2002*).

Sasa (dwarf bamboo) as understory vegetation: *S. kurilensis* and *S. palmata* are distributed widely but dominant only patchily. Instead, evergreen shrub (*Camellia japonica* var. *decumbens*), tall herbs (e.g. genera *Laportea, Elatostema and Petasites*) and ferns (genera *Polystichum*, *Dyropteris*

and *Arachniodes*) dominate the understory layer (Hoshizaki et al. 1997*).

Maximum canopy height: 30 m (Suzuki et al. 2002*).

Plot & Traps: The 1-ha plot was a part of a 4.71-ha permanent plot. The direction of Y-axis is 11° east from true north. 121 traps were initially installed in the 1-ha plot from 1990 (Masaki et al. 2007*), and the number of traps have been reduced to 60 since 2002. Only data of 25 traps from 2004 were included in this data paper (Fig. A2).

Remarks: The entire data are available on the Forest Dynamics Database (http://fddb.ffpri-108.affrc.go.jp/).

Acknowledgements: We thank Wajirou Suzuki, Katsuhiro Osumi and Kazunori Takahashi for early setup of the plot.

AO-BC1

Forest age: OG.

Disturbance: Human usage of the forest has been restricted for the past 400 years (Suzuki Mitsuo personal communication).

Soil type FAO: Humic Cambisols.

Soil type Forest Soil Division: Brown forest soil (Scale 1:50,000 Fundamental Land Classification Survey in Miyagi, Sendai,1976)

Soil pH: NA

Bedrock: Aobayama formation on tuff (http://www.biology.tohoku.ac.jp/garden/geology.htm).

Snow depth: 0.1 m

Sasa (dwarf bamboo) as understory vegetation: Patchy distribution of *Sasa borealis* (Kobayashi K. personal observation).

Maximum canopy height: 20 m (Kobayashi K. personal observation).

Plot & Traps: Trap identification codes are different from standard codes (Fig. A3), although litter traps were located in a standard manner. The direction of Y-axis is 18° west from true north.

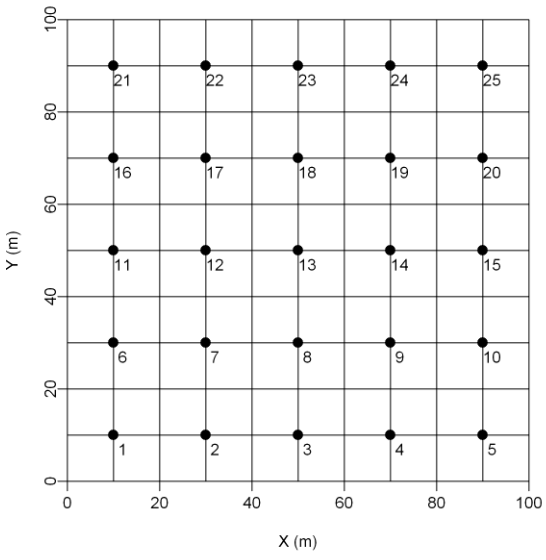

Fig. A3 Layout of the plot and locations of litter traps in AO-BC1.

OS-EC1

Forest age: OG. About 500 years old (Homma K. personal communication).

Disturbance:

Soil type FAO: Humic Cambisols.

Soil type Forest Soil Division: Dry podzolic soil, Wet iron podzolic soil (Nakata 1994).

Soil pH: 4.0−4.9 (Nakata 1994).

Bedrock: Andesite (Nakata 1994).

Snow depth: 3.5−3.9 m (Nakata 1994).

Sasa (dwarf bamboo) as understory vegetation: None (Homma K. personal observation).

Maximum canopy height: About 15−20 m (Nakata 1994).

Plot & Traps: Trap identification codes are different from standard codes (Fig. A4), although litter traps were located in a standard manner. The direction of Y-axis is 79° east from true north.

Remarks: Dry weight of reproductive structure (*wdy_rep*) includes dry weight of only seeds and fruits but not other reproductive structures (e.g. flowers).

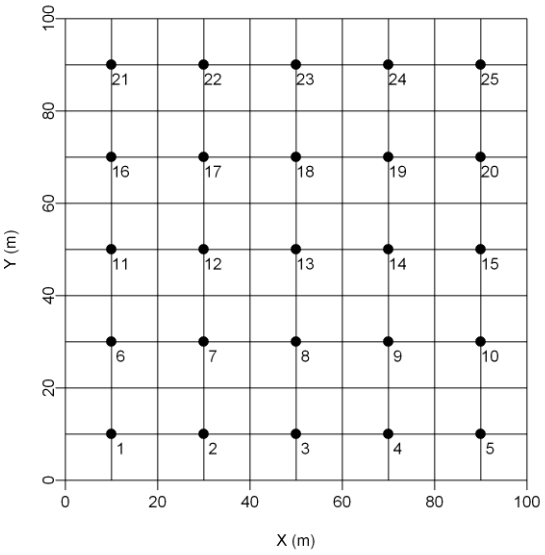

Fig. A4 Layout of the plot and locations of litter traps in OS-EC1.

KS-DB1

Forest age: S.

Disturbance: The forest was used as a coppice forest and abandoned in 1970s. Mass mortalities of pine trees by Pine wilt disease and of Fagaceae trees by Japanese oak wilt have occurred since 1990s and 2000s, respectively (Homma K. personal communication).

Soil type FAO: Humic Cambisols.

Soil type Forest Soil Division:

Soil pH: NA

Bedrock: NA

Snow depth: 0.5 m (Homma K. personal observation).

Sasa (dwarf bamboo) as understory vegetation: None (Homma K. personal observation).

Maximum canopy height:

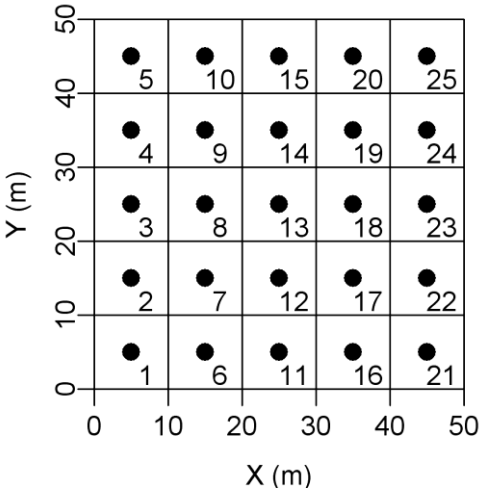

Fig. A5 Layout of the plot and locations of litter traps in KS-DB1.

Plot & Traps: The shape of plot is 25×25 m. See Fig. A5 for locations of traps. The direction of Y-axis is 67° west from true north.

Remarks: Data for 2009 are in preparation. Dry weight of reproductive structure (*wdy_rep*) includes dry weight of only seeds and fruits but not other reproductive structures (e.g. flowers).

OG-DB1

Forest age: OG.

Disturbance: Although the forest is an old-growth forest, human disturbances such as fire, grazing, and selective cutting took place until 1930s at surrounding forests. Remains of charcoal making were found around the plot (Masaki et al. 1999*, Suzuki 2002*).

Soil type FAO: Ochric Cambisols.

Soil type Forest Soil Division: Brown forest soil partly black or gley soil (Masaki et al. 1999*).

Soil pH: 4.7−6.2 (Yoshinaga et al. 2002*).

Bedrock: Metamorphic rock, volcanic ejacta (Yoshinaga et al. 2002*).

Snow depth: 0.5 m (Masaki et al. 1999*).

Sasa (dwarf bamboo) as understory vegetation: Patchy distribution of *Sasamorpha borealis* and *Sasa nipponica* (Suzuki 2002*).

Maximum canopy height: About 35 m (Nakashizuka 2002*).

Plot & Traps: The 1.2 ha plot was part of a 6-ha plot (see Nakashizuka and Matsumoto 2002), in which 263 traps were installed from 1987. Only data of 25 traps from 2004 were included in this data paper (Fig. A6). The direction of Y-axis is 100° west from true north.

Remarks: The entire data are available on the Forest Dynamics Database (http://fddb.ffpri-108.affrc.go.jp/). Data for 2007 have not yet been prepared.

Acknowledgements: Grants in support came from the Ministry of Agriculture, Forestry and Fishery, and the Ministry of Education, Science, Sports and Culture.

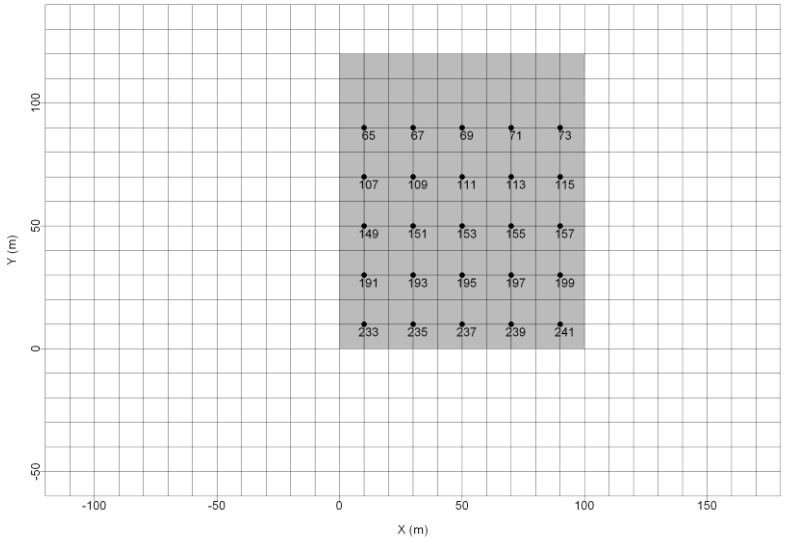

Fig. A6 Layout of the plot and locations of litter traps in OG-DB1. Grayed area indicates the permanent plot for tree census of which data were published in Ishihara et al. (2011).

KY-DB1

Forest age: OG.

Disturbance: A light selective cutting probably occurred because remains of charcoal making were found around the plot (Watanabe 1993).

Soil type FAO: Humic Cambisols.

Soil type Forest Soil Division: Brown forest soil (Ida H. personal observation).

Soil pH: NA

Bedrock: Plateau originated from lava flow (Ida et al. 2004).

Snow depth: 3−4 m (Ida et al. 2004).

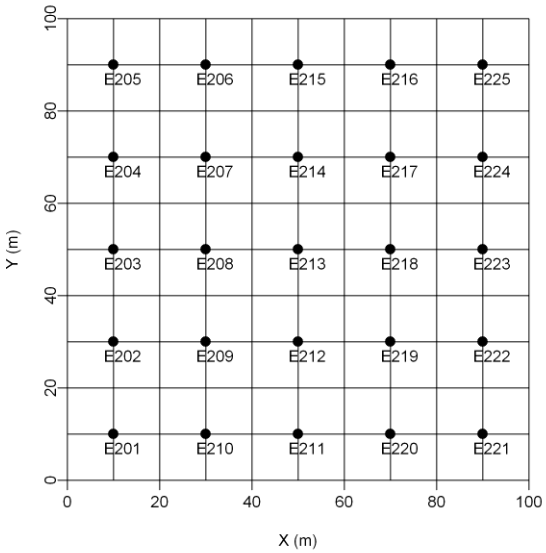

Fig. A7 Layout of the plot and locations of litter traps in KY-DB1.

Sasa (dwarf bamboo) as understory vegetation: Understory is dominated by 1.5 m high *Sasa kurilensis* and *Sasa senanensis* (Peters et al. 1992; Ida et al. 2004).

Maximum canopy height: 25 m (Watanabe 1994).

Plot & Traps: Trap identification codes are different from standard codes (Fig. A7), although litter traps were located in a standard manner. The direction of Y-axis is 97° west from true north.

OT-EC1

Forest age: OG.

Disturbance: No record of human disturbance (Ida H. personal observation).

Soil type FAO: Humo-Ferric (Gleyic) Podzols.

Soil type Forest Soil Division: Wet humus podzolic partly dry podzolic or moderately moist brown forest soil (Takai et al. 1976).

Soil pH: 3.8–4.5 (Takai et al. 1976).

Bedrock: Deposition of andesite and volcanic mudflow (Takai et al. 1976).

Snow depth: 3 m (Ida H. unpublished data).

Sasa (dwarf bamboo) as understory vegetation: Understory is dominated by 1 m high *Sasa kurilensis* (Kuroiwa and Watanabe 1997*).

Maximum canopy height: 22 m (Kuroiwa and Watanabe 1997*).

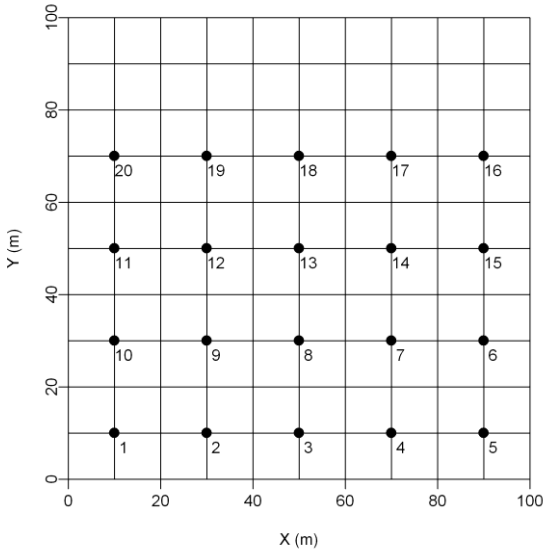

Fig. A8 Layout of the plot and locations of litter traps in OT-EC1.

Plot & Traps: Only 20 traps were installed (Fig. A8). The direction of Y-axis is 3° west from true north.

Remarks: Only 20 traps were installed (Fig. A8).

OY-DB1

Forest age: OG. 254-year-old tree was recorded in 1988 (Sakio 1997*).

Disturbance: *Fraxinus platypoda* established after a land slide caused by an earthquake in 1770 to 1790 (Sakio 1997*). No record of logging (Kubo et al. 2005*).

Soil type FAO: Humo-Ferric Podzols.

Soil type Forest Soil Division: Sand, gravel, rock (Sakio 1997*).

Soil pH: NA

Bedrock: Greywacke, sandstone (Sakio 1997*).

Snow depth: 0.3 m (Sakio 1997*).

Sasa (dwarf bamboo) as understory vegetation:

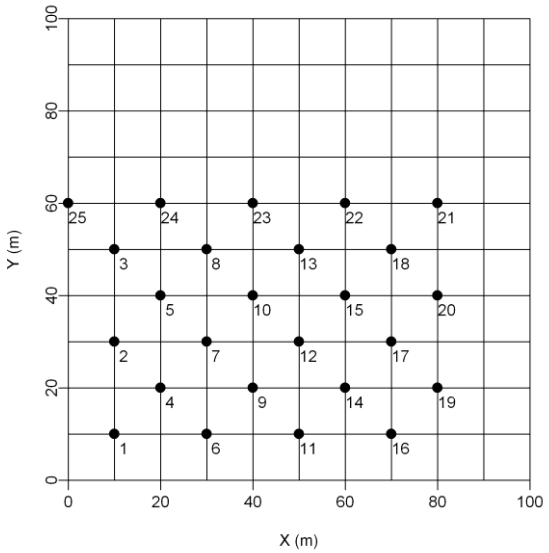

Fig. A9 Layout of the plot and locations of litter traps in OY-DB1.

2 m height *Sasamorpha borealis* dominates at slope (Sakio H. personal observation).

Maximum canopy height: 35 m (Sakio H. unpublished data).

Plot & Traps: Litter traps were installed to cover a riparian forest dominated by *Fraxinus platypoda*, *Pterocarya rhoifolia*, and *Cercidiphyllum japonicum* (Sakio et al. 2002*) and to exclude a forest on a slope that distribute from 70 to 100 in y coordinates (Fig. A9). The direction of Y-axis is 116° west from true north.

Remarks: The collection area of the traps was 0.785 m^2 in 2008 and 2009.

Acknowledgements: We thank Drs. Masako Kubo and Naoko Sashimura for the field works of the research site. Thanks are also due to the members of Mori to Mizu no Genryu Bunkajuku for their various assistances.

CC-DB1

Forest age: OG.

Disturbance: No record of logging since the University forest was established in 1916.

Soil type FAO: Humic Cambisols.

Soil type Forest Soil Division: Moderately moist brown forest soil (University Forest in Chichibu 2000).

Soil pH: NA

Bedrock: Sedimentary rock (University Forest in Chichibu 2000).

Snow depth: 0.2−0.3 m (Sawada et al. 2005*).

Sasa (dwarf bamboo) as understory vegetation: None.

Maximum canopy height: 29.2 m (Yoshida et al. 2011*).

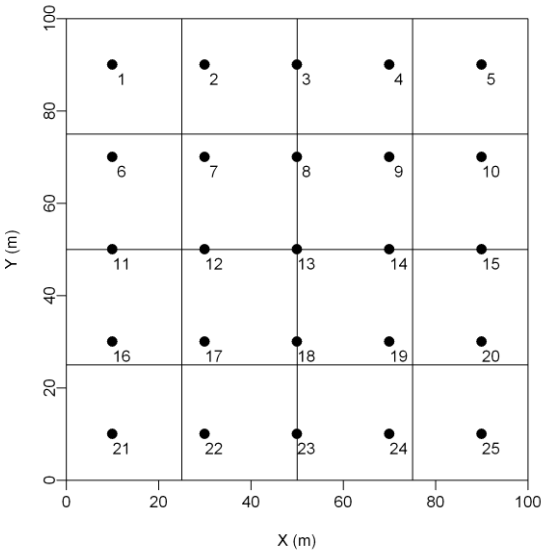

Fig. A10 Layout of the plot and locations of litter traps in CC-DB1.

Plot & Traps: The 1-ha plot was subdivided into sixteen 25×25 m grid cells, which is part of a 6.8 ha plot (Suzuki 2011*). The direction of Y-axis is true north. Trap identification codes are different from standard codes (Fig. A10), although litter traps were located in a standard manner.

CC-DB2

Forest age: S. 65 years old in 2000 (University Forest in Chichibu 2000).

Disturbance: Regenerated naturally after a clear cutting event.

Soil type FAO: Humic Cambisols.

Soil type Forest Soil Division: Moderately moist to slightly wetted brown forest soil (University Forest of Chichibu 2000).

Soil pH: NA

Bedrock: Sedimentary rock (University Forest in Chichibu 2000).

Snow depth: 0.2−0.3 m (Sawada et al. 2005).

Sasa (dwarf bamboo) as understory vegetation: Almost none.

Maximum canopy height: 22.8 m (University Forest in Chichibu unpublished data).

Plot & Traps: The shape of plot is 30×40 m and divided into 12 grid cells. Traps were located in the center of the grid cells (Fig. A11). The direction of Y-axis is 142° west from true north.

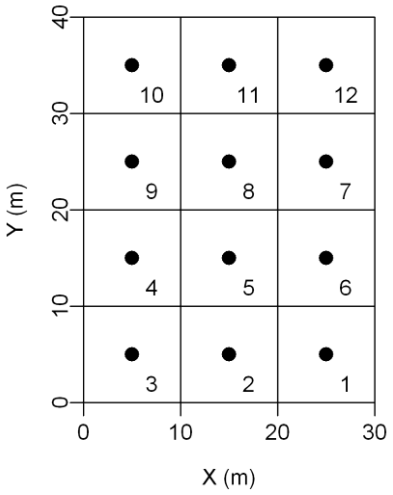

Fig. A11 Layout of the plot and locations of litter traps in CC-DB2.

AU-EC1

Forest age: OG. 230-year-old tree was recorded in 1980 (Tamai and Tempo 1990).

Disturbance: Since the establishment of Ashiu Experimental Forest in 1924, no human disturbance occurred (Yamanaka et al. 1993). Mass mortality of Fagaceae trees by Japanese oak wilt has occurred since 2002.

Soil type FAO: Humic Cambisols.

Soil type Forest Soil Division: Brown forest soil (Ueda et al. 1993).

Soil pH: 4.5 (Ueda et al. 1993).

Bedrock: Sandstone, slate, mudstone, shale, chert (Ueda et al. 1993; Yamanaka et al. 1993).

Snow depth: 2–3 m (Yamanaka et al. 1993).

Sasa (dwarf bamboo) as understory vegetation: None since before sever herbivory by Sika deer occurred (Sakimoto M. personal observation).

Maximum canopy height: 25 m (Kawanabe et al. 1994; Sakimoto M. personal observation).

Plot & Traps: The traps were arranged in the standard manner (Fig. 2). The direction of Y-axis is 69° west from true north.

AI-BC1

Forest age: S. Less than 100 years old (Shibano 2000*).

Disturbance: The forest established on the previously bare land due to fuel wood consumption (Shibano 2000*). *Chamaecyparis obtusa* trees were planted in 1917−1918 to prevent soil erosion.

At present, the forest is composed of pine tree and broadleaf tree species that have naturally established. Mass mortality of pine trees by Pine wilt disease occurred in 1980s and late 2000s. In 2010, many oak trees were attacked by ambrosia beetle *Platypus quercivorus*, which transport the pathogenic fungi *Raffaelea quercivora* causing Japanese oak wilt.

Soil type FAO: Humic Cambisols.

Soil type Forest Soil Division: Moderately moist brown forest soil (Moroto et al. 1987).

Soil pH: 4.5−5.1 (Moroto et al. 1987).

Bedrock: Deeply weathered granite (Moroto et al. 1987).

Snow depth: 10.1 cm on average between 1966 and 1999 (University Forest in Aichi, the University of Tokyo unpublished data).

Sasa (dwarf bamboo) as understory vegetation: None.

Maximum canopy height: 20 m (Ariyakanon et al. 2000).

Plot & Traps: Trap identification codes are different from standard codes (Fig. A12), although litter traps were located in a standard manner. The direction of Y-axis is true north.

Acknowledgements: We thank Haruo Sawada, Yukiko Kamata, Takehiko Tsukamoto, Yoshihide Hara and Kenji Yanase, Technical Staff of the University Forest in Aichi, The University of Tokyo for the field work.

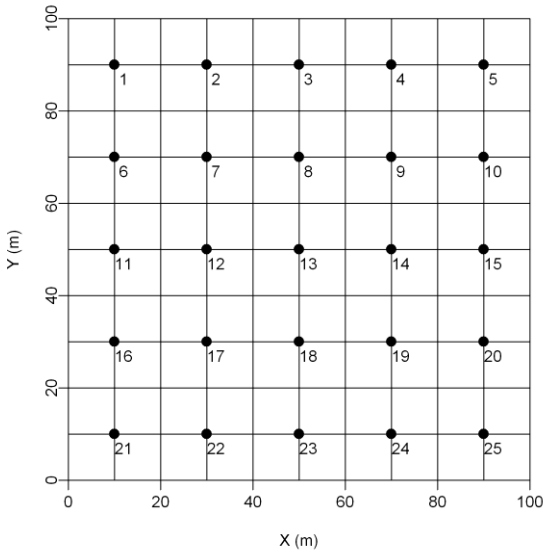

Fig. A12 Layout of the plot and locations of litter traps in AI-BC1.

KG-EC1

Forest age: S. About 90 years old (Sakimoto et al. 2009b*).

Disturbance: After mass mortality of dominant pine trees by Pine wilt disease in 1970s, *Chamaecyparis obtusa* that formed the middle and lower layers have become dominant (Sakimoto M. unpublished data).

Soil type FAO: Gleysols.

Soil type Forest Soil Division: Dry brown forest soil (Tokuchi et al. 2002*).

Soil pH: NA

Bedrock: Bedded chert with siliceous shale (Kimura et al. 1998).

Snow depth: Few cm (Kamigamo Experimental Station, Kyoto University http://fserc.kyoto-u.ac.jp/kami/).

Sasa (dwarf bamboo) as understory vegetation: None (Sakimoto M. personal observation).

Maximum canopy height: 20 m (Sakimoto M. personal observation).

Plot & Traps: The shape of the plot is 80×80 m (Fig. A13). The direction of Y-axis is 180° east from true north.

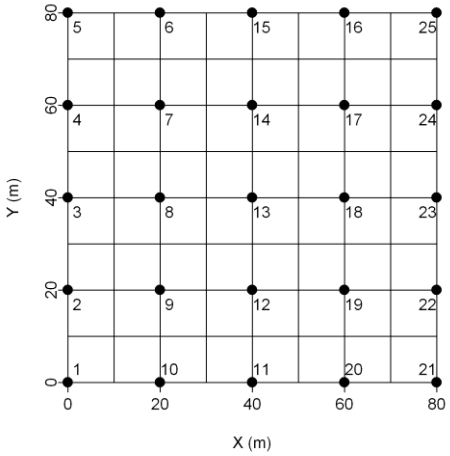

Fig. A13 Layout of the plot and locations of litter traps in KG-EC1.

WK-EC1

Forest age: OS. About 100 years old (Sakimoto et al. 2009a*).

Disturbance: Cut stumps created in 1920–1922 were found and the forest was used until the establishment of the University Forest in 1926 (Furuno et al. 1986).

Soil type FAO: Humic Cambisols.

Soil type Forest Soil Division: Moderately moist brown forest soil (Ueda et al. 1994).

Soil pH: 4.8–4.9 (Ueda et al. 1994).

Bedrock: Sandstone, shale (Toda et al. 2000).

Snow depth: 0.3 m (Wakayama Forest Research Station, Kyoto University http://fserc.kyoto-u.ac.jp/waka/).

Sasa (dwarf bamboo) as understory vegetation: None (Sakimoto M. personal observation).

Maximum canopy height: 25–30 m (Sakimoto M. personal observation).

Plot & Traps: Traps were located in an area of 50×50 m at 10-m intervals (Fig. A14). The direction of Y-axis is 30° east from true north.

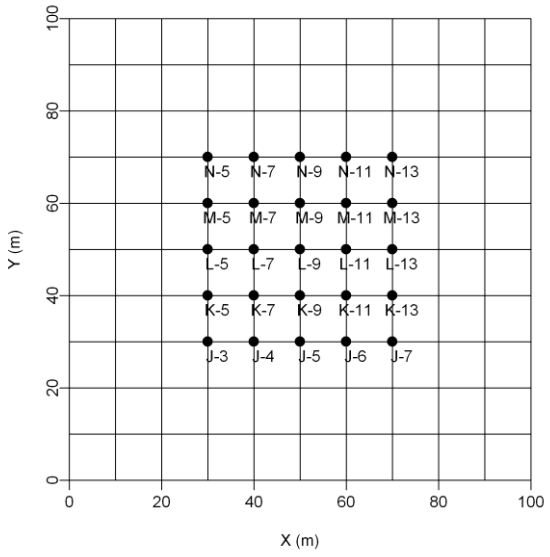

Fig. A14 Layout of the plot and locations of litter traps in WK-EC1.

IC-BC1

Forest age: OG. Maximum tree age is about 300 years old (Sakai T. unpublished data).

Disturbance: *Chamaecyparis obtusa* trees were cut selectively in 1985–1986 at the ridge (Sakai et al. 2006*. Sakai T. personal communication).

Soil type FAO: Humic Cambisols.

Soil type Forest Soil Division: Moderately moist to weakly dried brown forest soil, dry podzolic soil (Hirai et al. 2007*).

Soil pH: 3.6–5.1 (Hirai et al. 2007*).

Bedrock: Sandstone, mudstone (Sakai et al. 2006*).

Snow depth: 0.15 m (Sakai T. personal observation).

Sasa (dwarf bamboo) as understory vegetation: None (Sakai T. personal observation).

Maximum canopy height: 41 m (Sakai et al. 2006*).

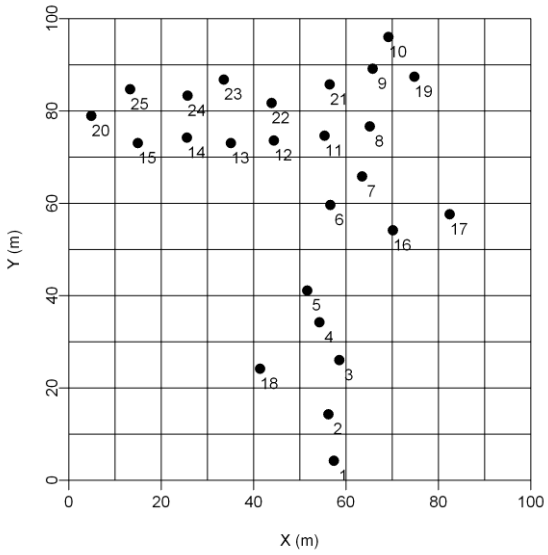

Fig. A15Layout of the plot and locations of litter traps in IC-BC1.

Plot & Traps: Traps were not arranged systematically (Fig. A15) because they were installed before the site joined the Monitoring Sites 1000 Project in 2005. Twenty of traps have been installed since 1994. The traps were located to cover both ridge and slope, dominated by conifers and evergreen broadleaved species, respectively. Other 5 traps were placed in 1997. The direction of

Y-axis is 142° west from true north.

Remarks: The collection area of 20 of 25 traps was 0.58 m^2 for the period 24 March 2005-30 November 2006.

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AY-EB1

Forest age: OG.

Disturbance: No record of human disturbance (Tanouchi and Yamamoto 1995*). The forest experienced typhoon disturbance in 1993, 2004 and 2005 (Saito and Sato 2007*).

Soil type FAO: Humic Cambisols.

Soil type Forest Soil Division: Dry, moderately moist, or moderately moist drier subtype brown forest soil (Sato et al. 1999*).

Soil pH: NA

Bedrock: Shale, sandstone, partly covered by pumice stone from volcanic eruption (Ohnuki et al. 1998*; Sato et al. 1999*).

Snow depth: 0 m (Masaki et al. 1999*).

Sasa (dwarf bamboo) as understory vegetation: None (Saito S. personal observation).

Maximum canopy height: 30 m (Saito and Sato 2007*).

Plot & Traps: The plot is part of 4-ha plot, in which forty-two traps were installed from 1992 (Fig. A16). Only data from 2004 was included in this data paper. The direction of Y-axis is 166° west from true north.

Remarks: The entire data are available on the Forest Dynamics Database (http://fddb.ffpri-108.affrc.go.jp/). The collection area of the traps was 0.58 m^2. Sato et al. (2010) analyzed litter fall data between 1992 and 2005, and demonstrated effects of typhoon disturbance on litter falls in this site.

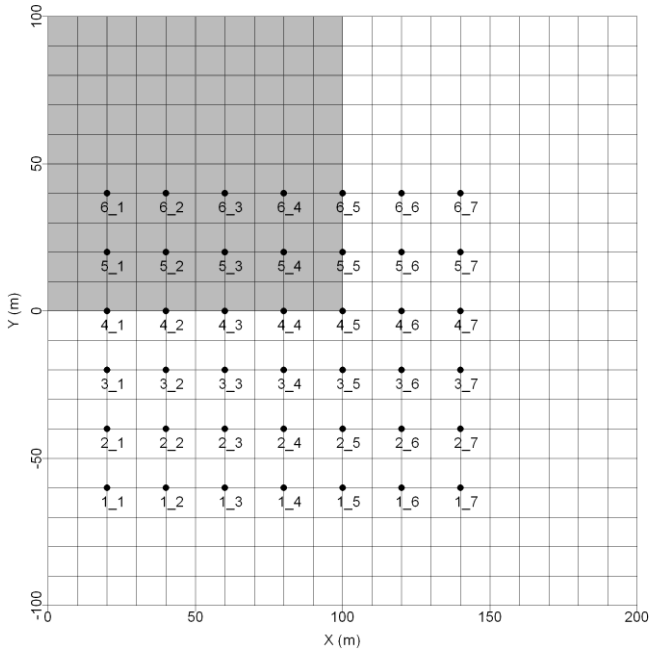

Fig. A16 Layout of the plot and locations of litter traps in AY-EB1. Grayed area indicates the permanent plot for tree census of which data were published in Ishihara et al.

TN-EB1

Forest age: S. 87 years old (Kubota and Takagi 2007*).

Disturbance: The forest regenerated in 1924 (Kubota and Takagi 2007*).

Soil type FAO: Andosols.

Soil type Forest Soil Division: Moderately moist brown soil (Takagi M. unpublished data).

Soil pH: 5.7 (Takagi M. unpublished data).

Bedrock: Shale (Endo 1958).

Snow depth: 0 m (Takagi M. personal observation).

Sasa (dwarf bamboo) as understory vegetation: None (Takagi M personal observation).

Maximum canopy height: 25 m (Takagi M unpublished data).

Plot & Traps: Traps were not located on the corner of grid cells (Fig. A17) to avoid steep slope. The direction of Y-axis is 6° east from true north.

Acknowledgements: We thank the staff of University of Miyazaki Tano Forest Science Station for the field work.

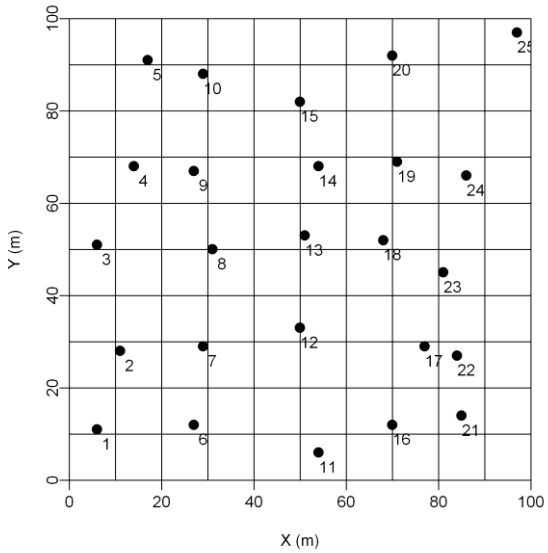

Fig. A17 Layout of the plot and locations of litter traps in TN-EB1.

AM-EB1

Forest age: OS. About 140 years old.

Disturbance: Remains of charcoal making were found in the plot. Protected from human disturbance for 100 years as a reserve (Ishida et al. 2008).

Soil type FAO: Humic Cambisols.

Soil type Forest Soil Division: Weakly dried to moderately moist yellow soil at the valley (Ishida K. personal observation)

Soil pH:

Bedrock: Shale partly sandstone (Ishida K. personal observation)

Snow depth: None (Ishida K. personal observation)

Sasa (dwarf bamboo) as understory vegetation: None (Ishida K. personal observation)

Maximum canopy height: 20 m (Kumamoto Forest Office and Japan Forest Technology Association 1997)

Plot & Traps: Trap identification codes are different from standard codes (Fig. A18), although litter traps were located in a standard manner. The direction of Y-axis is 175° east from true north.

Remarks: For the periods after 11 April 2008, all samples of reproductive structures in each collection period were pooled and weighted due to technical reasons. For these data, the average weight (the pooled weight / the number of traps [N=25]) was recorded as weight of reproduction structure of each trap.

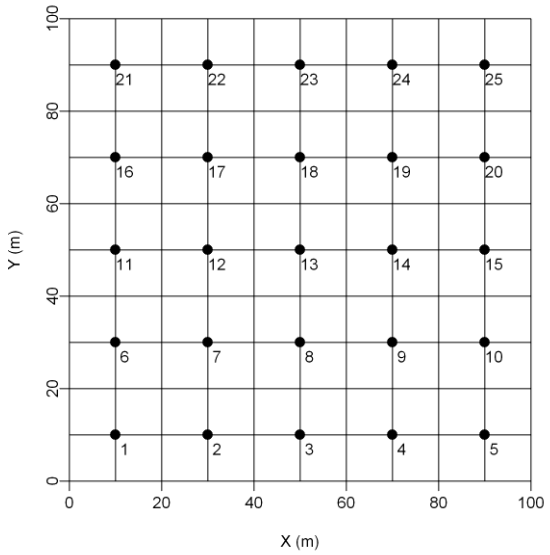

Fig. A18 Layout of the plot and locations of litter traps in AM-EB1.

YN-EB1

Forest age: OS.

Disturbance: Human disturbance such as selective cutting occurred until 1950s (Enoki 2003*; Saito 2011).

Soil type FAO: Helvic Acrisols.

Soil type Forest Soil Division: Weakly dried to moderately moist yellow soil (Yamamori et al. 1986).

Soil pH: 4.1–4.3 (Yamamori et al. 1986).

Bedrock: Sandstone and slate (Enoki 2003*).

Snow depth: 0 m.

Sasa (dwarf bamboo) as understory vegetation: *Pleioblastus linearis* distributed at ridges (Takashima A. personal observation).

Maximum canopy height: 20 m (Shinzato et al. 1986).

Plot & Traps: Trap identification codes are different from standard codes (Fig. A19), although litter

traps were located in a standard manner. The direction of Y-axis is 40° west from true north.

Acknowledgements: We thank the staff of Yona field, Subtropical Field Science Center, Faculty of Agriculture, University of the Ryukyus.

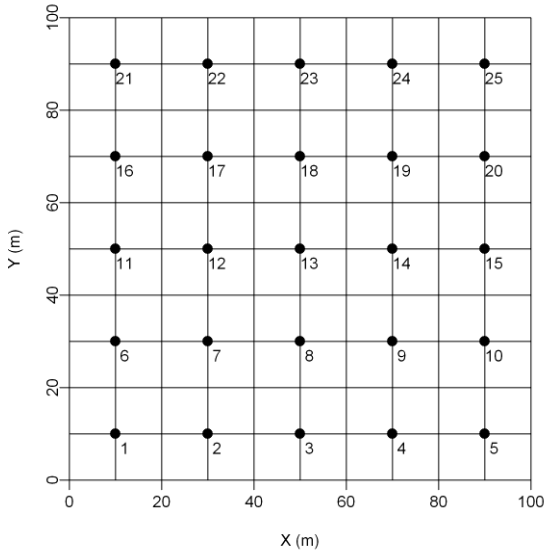

Fig. A19 Layout of the plot and locations of litter traps in YN-EB1.

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