Tables and Figs

Figures

Table 1. Individual ID and their size of each *Cercidiphyllum* tree targeted in this study.

Host ID	GBH (cm)	Height (m)
0	81	18.2
1	134	25.7
2	221	30.6
3	271	30.8
4	386	34.1
5	395	30.7
6	663	23.0
7	1116	37.8

Table 2. List of epiphyte species with number of individuals of each host tree individuals, number of observed substrate type (A = arboreal soil, M= moss, B = bark, and U = unclassified), and types of epiphytism (white circle and black circle denote accidental epiphytes and obligate epiphytes, respectively).

Species name and taxonomic group	No. of ind. on each host tree							No. of ind. of each substrate type				Epiphytic type	Total No.of ind.
	1	2	3	4	5	6	7	A	M	B	U		
Eudicots													
Actinidiaceae													
Actinidia polygama (Siebold et Zucc.) Planch. Ex Maxim.	0	0	1	0	0	0	1	2	0	0	0	○	2
Alangiaceae													
Alangium platanifolium (Siebold et Zucc.) Harms var. *platanifolium*	0	0	0	0	0	0	3	3	0	0	0	○	3
Alnaceae													
Corylus sieboldiana Blume var. *sieboldiana*	0	0	0	0	0	0	1	0	1	0	0	○	1
Anacardiaceae													
Rhus javanica L. var. *chinensis* (Mill.) T.Yamaz.	0	0	0	0	0	0	2	0	2	0	0	○	2

Toxicodendron trichocarpum (Miq.) Kuntze	0	0	0	0	0	0	3	3	0	0	0	○	3
Aquifoliaceae													
Ilex macropoda Miq.	0	0	0	0	0	0	1	1	0	0	0	○	1
Araliaceae													
Aralia elata (Miq.) Seem.	0	0	0	1	0	0	1	2	0	0	0	○	2
Kalopanax septemlobus (Thunb.) Koidz.	0	0	0	0	0	3	0	3	0	0	0	○	3
Chengiopanax sciadophylloides (Franch. et Sav.) C.B.Shang et J.Y.Huang	0	0	0	0	0	0	6	6	0	0	0	○	6
Campanulaceae													
Peracarpa carnosa (Wall.) Hook.f. et Thomson	0	0	4	0	0	5	0	9	0	0	0	○	9
Caryophyllaceae													
Stellaria diversiflora Maxim.	0	0	0	10	0	21	0	10	21	0	0	○	31
Celastraceae													
Euonymus sieboldianus Blume var. *sanguineus* Nakai	0	0	0	0	0	0	1	1	0	0	0	○	1
Euonymus alatus (Thunb.) Siebold var. *alatus* f. *striatus* (Thunb.) Makino	0	0	0	0	0	0	4	4	0	0	0	○	4

Celastrus orbiculatus Thunb. Var. *strigillosus* (Nakai) H.Hara	0	0	0	0	0	0	5	3	2	0	0	○	5
Clethraceae													
Clethra barbinervis Siebold et Zucc.	0	0	0	0	0	0	2	2	0	0	0	○	2
Ericaceae													
Vaccinium smallii A. Gray var. *versicolor* (Koidz.) T.Yamaz.	0	0	0	0	0	0	1	1	0	0	0	○	1
Lyonia ovalifolia (Wall.) Drude var. *elliptica* (Siebold et Zucc.) Hand.-Mazz.	0	0	0	0	0	0	1	1	0	0	0	○	1
Fagaceae													
Quercus crispula Blume var. *crispula*	0	0	0	0	0	0	1	1	0	0	0	○	1
Gentianaceae													
Gentiana zollingeri Fawc.	0	0	0	2	0	0	0	2	0	0	0	○	2
Grossulariaceae													
Ribes ambiguum Maxim.	0	0	0	0	0	0	9	7	2	0	0	●	9
Helwingiaceae													
Helwingia japonica (Thunb.) F.Dietr.	0	0	0	0	0	0	1	1	0	0	0	○	1
Lamiaceae													

Callicarpa japonica Thunb.	0	0	0	0	0	0	1	1	0	0	0	○	1
Oxalidaceae													
Oxalis nipponica S.Aoki et J.Murata subsp. *nipponica*	0	2	20	5	7	7	44	37	48	0	0	○	85
Rosaceae													
Cerasus apetala (Siebold et Zucc.) Masam. et S.Suzuki var. *pilosa* (Koidz.) H.Ohba	0	0	0	0	0	0	1	1	0	0	0	○	1
Cerasus jamasakura (Siebold ex Koidz.) H.Ohba	0	0	0	0	0	0	1	0	0	0	1	○	1
Micromeles alnifolia (Siebold et Zucc.) Koehne	0	0	0	0	0	1	4	1	2	0	2	○	5
Sorbus commixta Hedl.	0	0	0	0	0	1	4	4	1	0	0	○	5
Padus grayana (Maxim.) C.K.Schneid.	0	0	0	0	0	0	8	6	2	0	0	○	8
Sapindaceae													
Acer palmatum Thunb.	0	0	0	0	0	0	1	1	0	0	0	○	1
Acer sieboldianum Miq.	0	0	0	0	0	1	0	0	0	0	1	○	1
Acer rufinerve Siebold et Zucc.	0	0	0	0	0	0	2	2	0	0	0	○	2
Thymelaeaceae													
Daphne miyabeana Makino	0	0	0	0	0	0	1	0	1	0	0	○	1
Trochodendraceae													

Trochodendron aralioides Siebold et Zucc.	0	0	0	0	0	0	1	0	0	0	1	○	1
Pteridophytes													
Davalliaceae													
Davallia mariesii T.Moore ex Baker	0	0	13	10	0	1	88	0	94	18	0	●	112
Dryopteridaceae													
Arachniodes standishii (T.Moore) Ohwi	0	0	0	0	0	0	3	3	0	0	0	○	3
Dryopteris crassirhizoma Nakai	0	0	0	0	1	4	3	7	1	0	0	○	8
Polystichum tripteron (Kunze) C.Presl	0	0	0	0	0	0	11	0	11	0	0	○	11
Hymenophyllaceae													
Crepidomanes minutum (Blume) K.Iwats.	0	0	0	0	0	0	609	0	609	0	0	●	609
Polypodiaceae													
Lepisorus thunbergianus (Kaulf.) Ching	0	1	0	0	2	0	0	0	1	2	0	●	3
Loxogramme grammitoides (Baker) C.Chr.	0	0	0	0	0	0	6	0	6	0	0	●	6
Pleurosoriopsis makinoi (Maxim. Ex Makino) Fomin	0	0	0	20	0	8	11	13	26	0	0	●	39
Lepisorus annuifrons (Makino) Ching	0	0	0	0	0	1	50	0	51	0	0	●	51

Polypodium fauriei Christ	16	17	21	42	32	4	67	21	124	54	0	●	199
Monocots													
Cyperaceae													
Carex *foliosissima* F.Schmidt	0	0	0	0	0	0	4	4	0	0	0	○	4
Orchidaceae													
Hemipilia chidori (Makino) Y.Tang, H.Peng et T.Yukawa	0	0	0	0	0	0	13	3	10	0	0	●	13
Goodyera pendula Maxim.	0	0	0	0	0	0	30	1	29	0	0	●	30
Poaceae													
Poa sp.	0	0	0	0	0	0	1	1	0	0	0	○	1
Lycophytes													
Huperziaceae													
Phlegmariurus cryptomerinus (Maxim.) Satou	0	0	0	0	0	0	2	0	2	0	0	●	2
Gymnosperms													
Taxaceae													
Cephalotaxus harringtonia (Knight ex Forbes) K.Koch var. *nana* (Nakai) Rehder	0	0	0	0	0	3	5	8	0	0	0	○	8
Total	16	20	59	90	42	60	1014	176	1046	74	5	0	1301

Figures

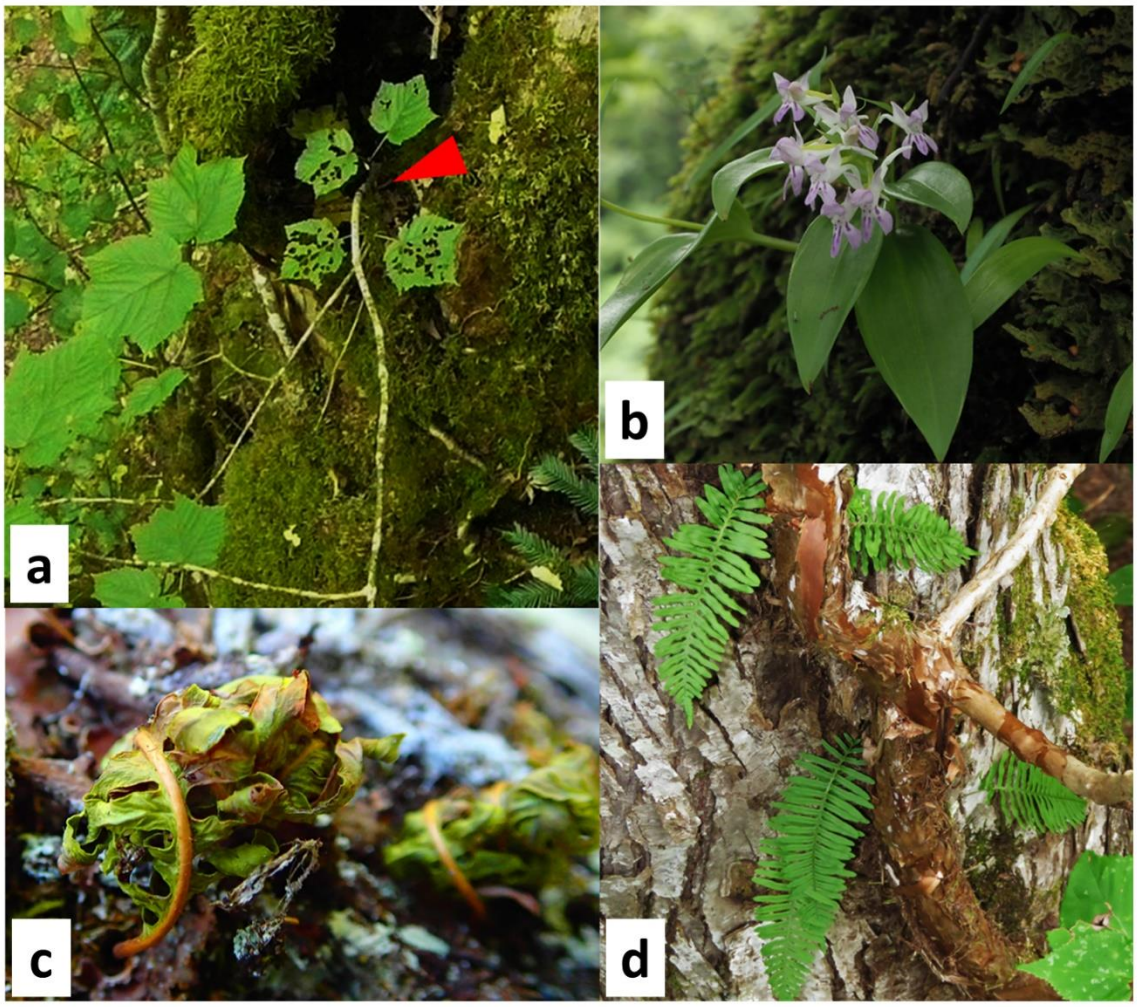

Fig. 1. Examples of habitats of epiphytes. A juvenile of *Acer rufinerve* Siebold et Zucc. rooting in arboreal soil accumulated in a hollow, red arrow indicates basal part of the stem (a), *Hemipilia chhidori* growing with bryophytes and lichens (b), and *Polypodium fauriei* growing on bark (c), and *P. fauriei* on bark aside of a stem of *Hydrangea petiolaris* (d).

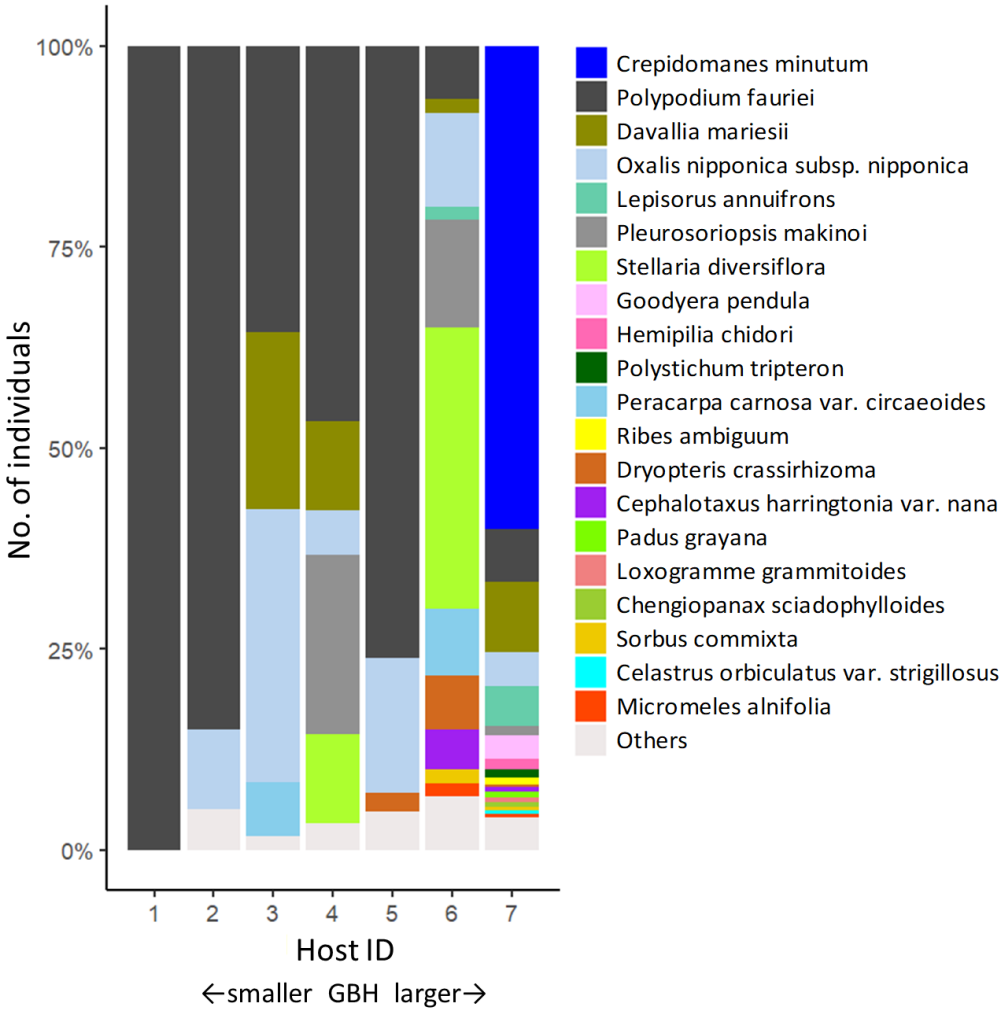

Fig. 2. Relative abundances (%) of each epiphyte species among host tree individuals. Epiphyte species whose number of individuals were less than five were lumped as others.

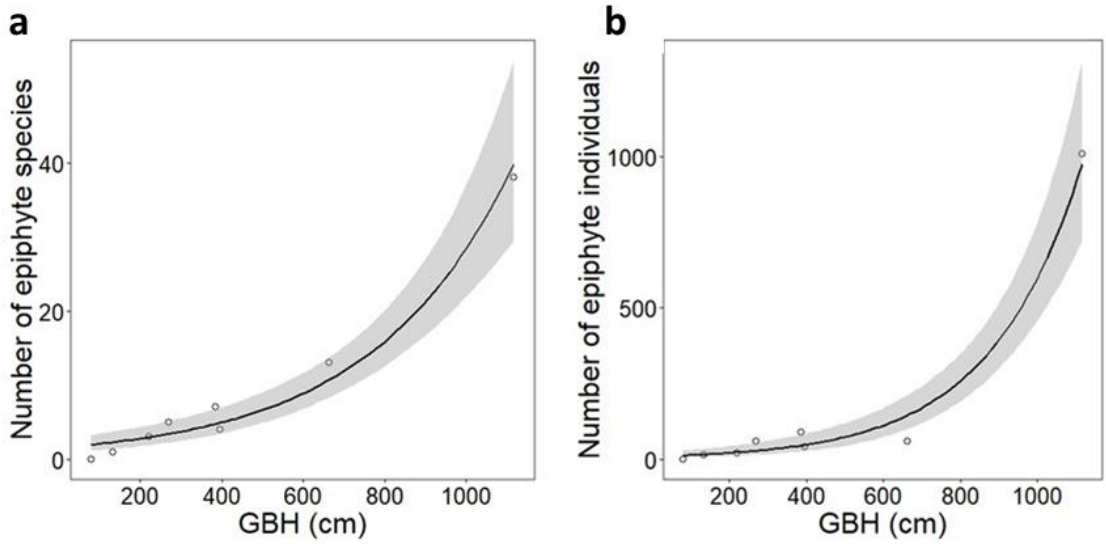

Fig. 3. (a) Relationships between GBH and epiphyte species richness on a tree. The regression line was obtained through a Poisson GLM (y = exp (0.447 + 0.003 x), pseudo R^2 = 0.92, P <0.001). The shaded band indicates the 95% confidence interval. (b) Relationships between GBH and epiphyte abundance on a tree. The regression line was obtained through a quasi-Poisson GLM (y = exp (2.205 + 0.004 x), pseudo R^2 = 0.95, P <0.001). The shaded band indicates the 95% confidence interval.

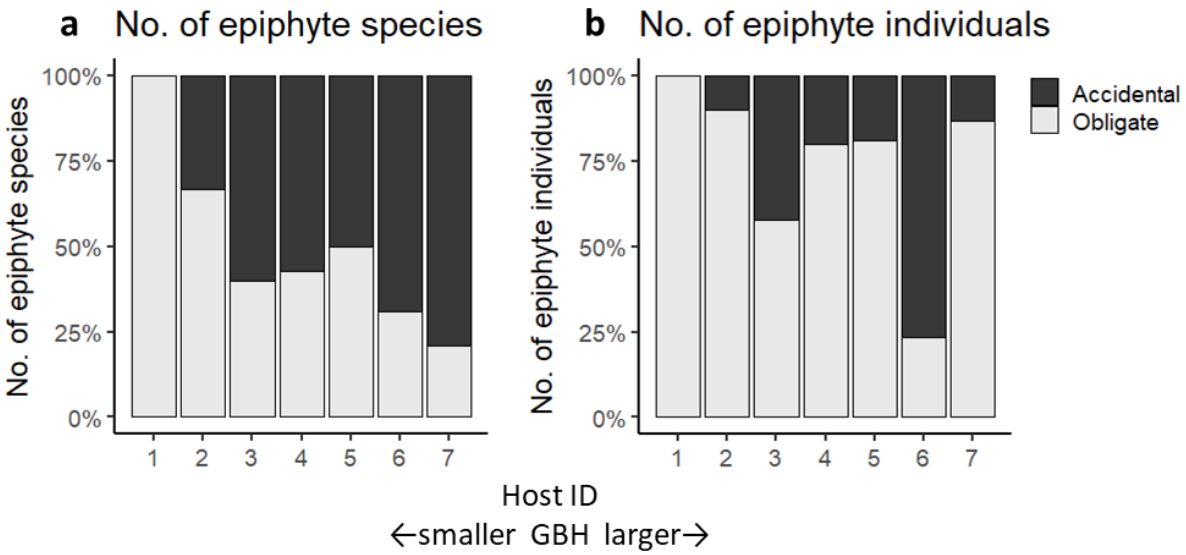

Fig. 4. Proportional changes of number of epiphyte species (a) or individuals (b) of obligate and accidental epiphytes along with host tree GBH.

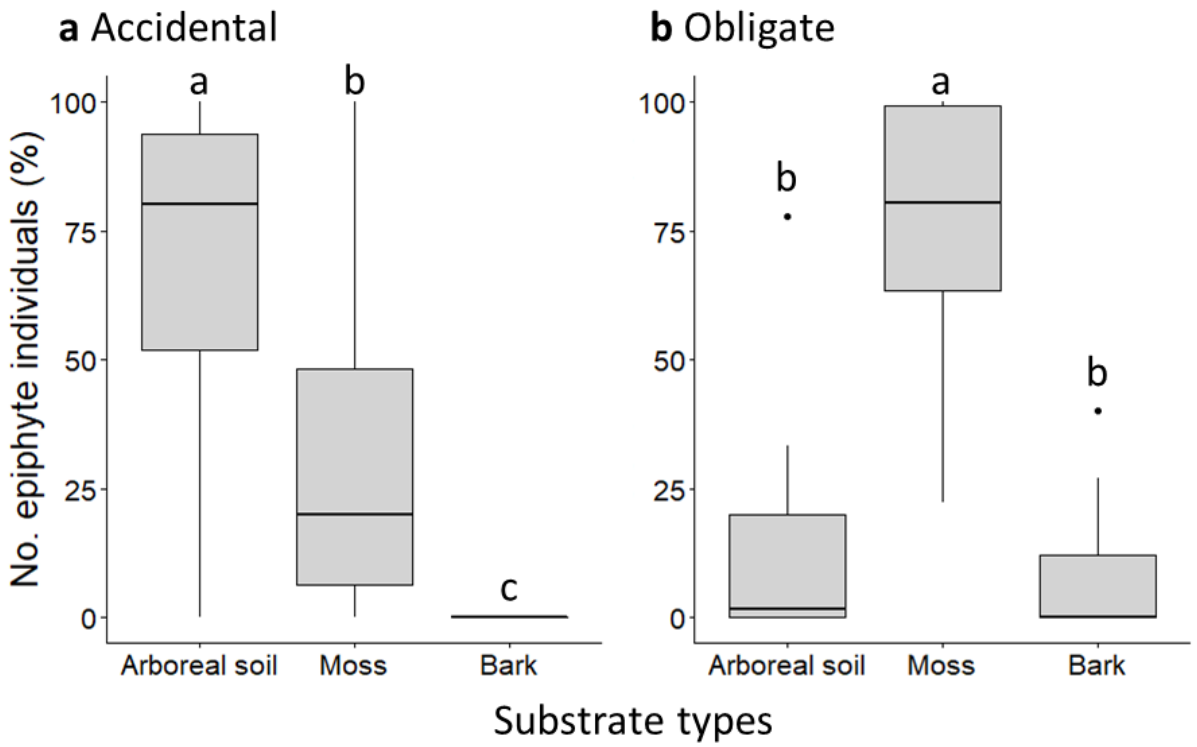

Fig. 5. Percentages of individuals of accidental (a) or obligate (b) epiphytes among three substrate types. Results of statistical analyses as follows. For accidental epiphytes, Kruskal-Wallis test ($P < 0.001$) and Steel-Dwass test ($P < 0.05$ in arboreal soil and moss, $P < 0.01$ in arboreal soil and bark, $P < 0.001$ in moss and bark). For obligate epiphytes, Kruskal-Wallis test ($P < 0.001$) and Steel-Dwass test ($P < 0.001$ in arboreal soil and moss, n.s. in arboreals soil and bark, $P < 0.001$ in moss and bark). Data on epiphyte individuals whose substrate types were unclassified were excluded.

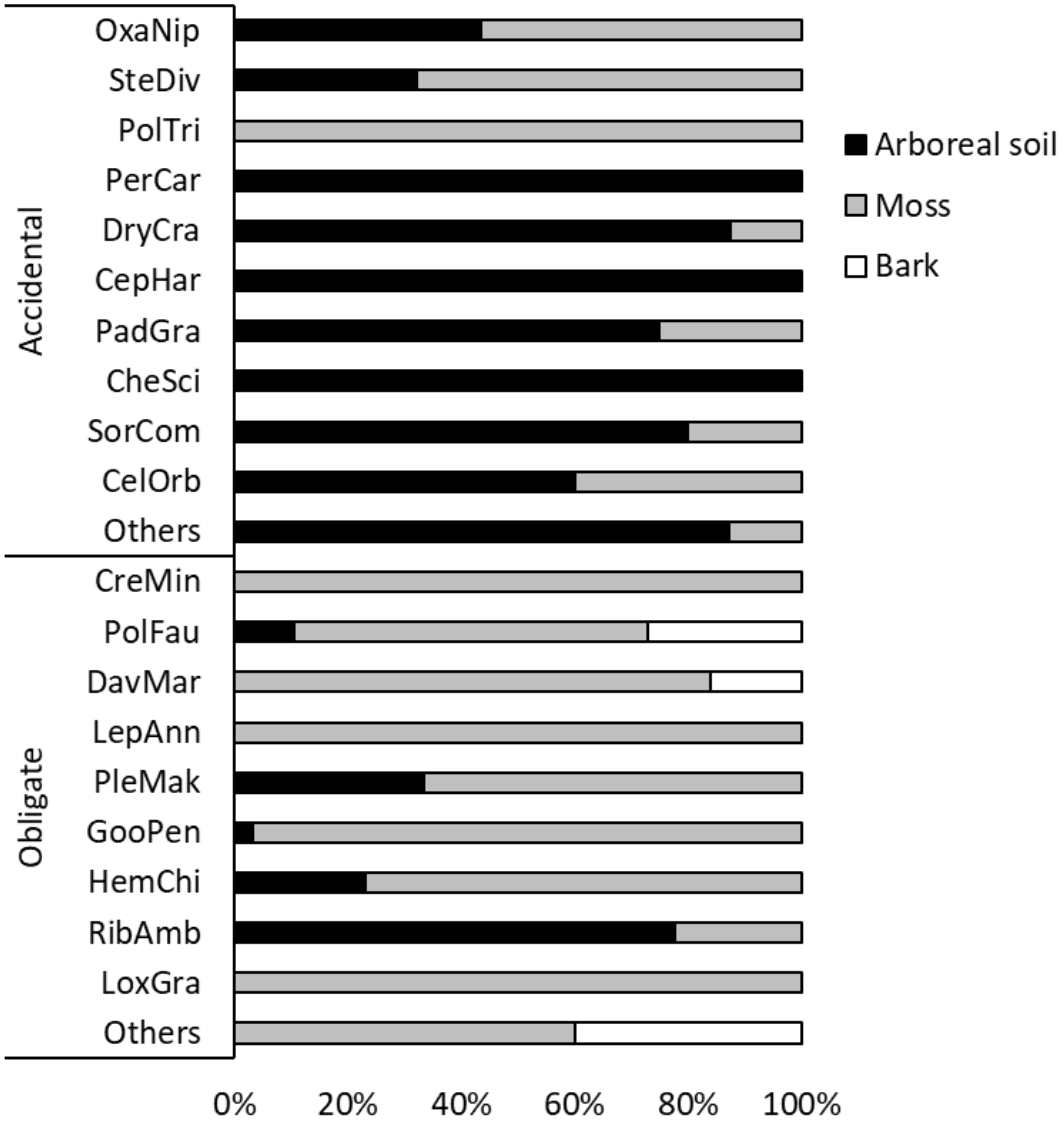

Fig. 6. Relative composition of substrate types of each epiphyte species. Epiphyte species whose number of individuals were less than five were lumped as others. The relationships of species codes in the figures and scientific names of epiphytes are same as those presented in Figure 2.