

Table S1_ Lists of websites

No.	Data Source	Specification
1	Università degli Studi di Firenze UniFI NATURAL HISTORY MUSEUM	https://fupress.com/
2	Herbarium Wu	https://herbarium.univie.ac.at/database/
3	Muséum national d'histoire naturelle	https://www.mnhn.fr/
4	Belgium Plantentuin Meise	https://www.plantentuinmeise.be/nl/
5	Botanic Garden Meise Botanical Collection	https://www.botanicalcollections.be/#/en/home
6	Smithsonia national museum of natural history	https://naturalhistory.si.edu/
7	Maturhistorisches museum wien	https://www.nhm-wien.ac.at/
8	Myanmar National Redlist	https://www.forestdepartment.gov.mm/
9	International Plant Name Index (IPNI)	https://www.ipni.org/
10	Pteridophyte Collections Consortium (PCC)	http://pteridoportal.org/portal/
11	Harvest university herbarium	https://huh.harvard.edu/
12	i Naturalist	https://www.inaturalist.org/
13	Atlas of Living Australia Occurrence	https://www.ala.org.au/
14	IUCN 2020. The IUCN Red List of Threatened Species	https://www.iucnredlist.org/
15	United Kingdom Natural History Museum London Data Portal	https://data.nhm.ac.uk/
16	Natural history museum data portal	https://www.nhm.ac.uk/

17	Global Tree Search	https://tools.bgci.org/global_tree_search.php
18	China National Knowledge Infrastructure (CNKI) and Research Gate	https://oversea.cnki.net/index/
19	New York Botanical Garden	https://www.nybg.org/
20	E-flora	http://www.efloras.org/index.aspx
21	Flora of Myanmar Database website	https://www.kahaku.go.jp/research/db/botany/myanmar/flora/index.php
22	World Checklist of Selected Plant Family (WCSP)	https://wcsp.science.kew.org/advsearch.do
23	Royal Botanic Garden Kew	https://www.kew.org/
24	Catalogue of life	https://www.catalogueoflife.org/
25	Encyclopedia of Life Smithsonian	https://eol.org/
26	Institution, Myanmar Checklist Botanical	https://www.si.edu/
27	Information and Ecology Network (BIEN)	https://bien.nceas.ucsb.edu/bien/
28	Plant of World Online	http://www.plantsoftheworldonline.org/
29	Tropicos	https://www.tropicos.org/home
30	Royal Botanic Garden Edinburgh	https://www.rbge.org.uk/
31	Flora of China	http://flora.huh.harvard.edu/china/index.html

32	Global Biodiversity Information Facility (GBIF)	https://www.gbif.org/
33	Biodiversity Heritage Library	https://www.biodiversitylibrary.org/

Table S2_ Sample completeness values for each ecoregion

Ecoregions	Area (km²)	Number of specimens	Sample Completeness	Sampling Density specimens/area(km²)	Sampling Density percentage
Chin Hills-Arakan Yoma Montane Forests	29700	6767	0.9037	0.227845118	10.52
Eastern Himalayan Alpine Shrub and Meadows	5264	863	0.7453	0.162646061	7.51
Irrawaddy Dry Forests	34987	8369	0.9477	0.238582587	11.01
Irrawaddy Freshwater Swamp Forests	15085	4838	0.8996	0.319867769	14.77
Irrawaddy Moist Deciduous Forests	137909	26876	0.9739	0.194390198	8.97
Kayah-Karen Montane Rain Forests	54959	1592	0.8187	0.028973374	1.33
Mizoram-Manipur-Kachin Rain Forests	70308	4142	0.8381	0.058740941	2.71
Myanmar Coast Mangroves	15827	3958	0.853	0.248946475	11.49
Myanmar Coastal Rain Forests	65368	7036	0.8741	0.107264273	4.95
Northern Indochina Subtropical Forests	136723	16240	0.9446	0.118878559	5.48
Northern Triangle Subtropical Forests	53709	6574	0.8529	0.122229659	5.64
Northern Triangle Temperate Forests	10677	2122	0.8149	0.198689139	9.17
Nujiang Langcang Gorge Alpine Conifer and Mixed Forests	4483	444	0.8638	0.099529254	4.59
Tenasserim-South Thailand Semi-Evergreen Rain Forests	29973	1163	0.6262	0.038822312	1.79

Table S3_Multiple linear regression for explanatory variables with collection Density

Explanatory variables	Collection density				
	Estimate	t - value	P - value	F value	R ²
Human population density	1.59E+00	4.938	< 2e-16 ***	328.3	0.33
Road proximity	2.11E-02	5.596	< 2e-16 ***	129.6	0.16
Elevational range	-3.49E+00	-8.767	< 2e-16 ***	281.9	0.31
Size of Permanent Forest Estates	2.21E+01	0.766	0.523	1.136	0.01

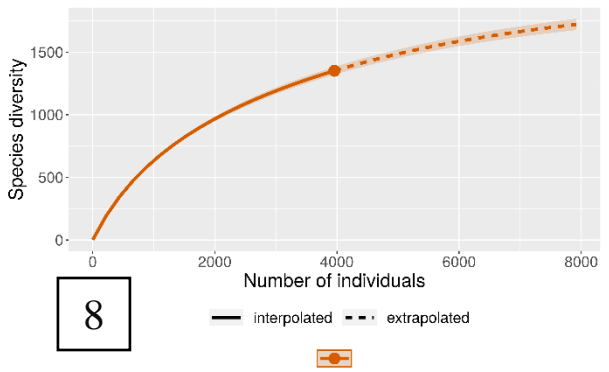
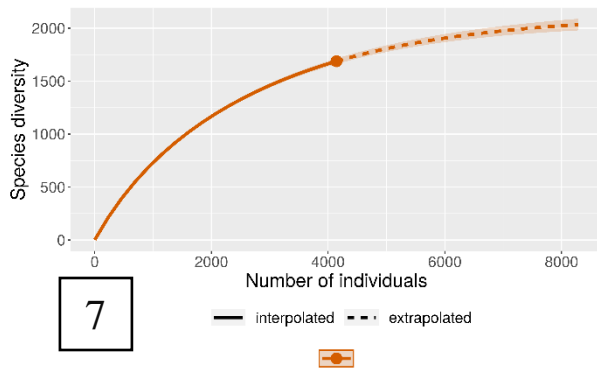
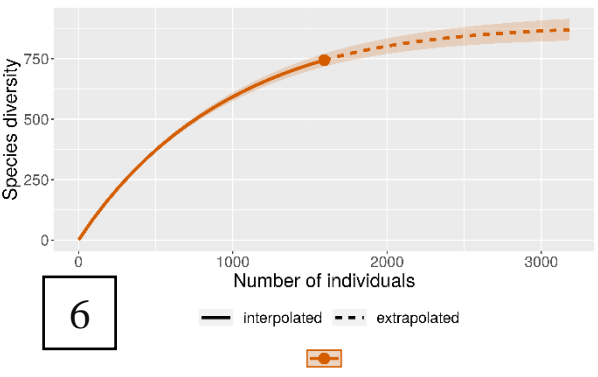
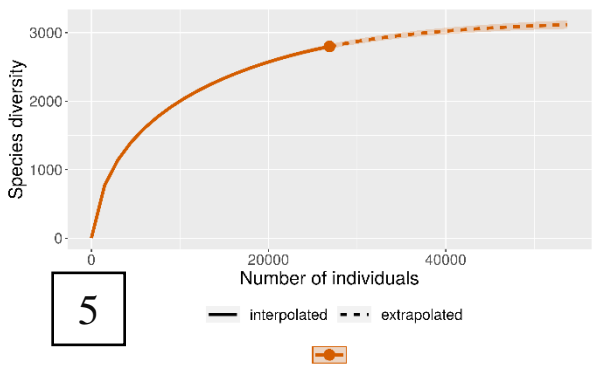
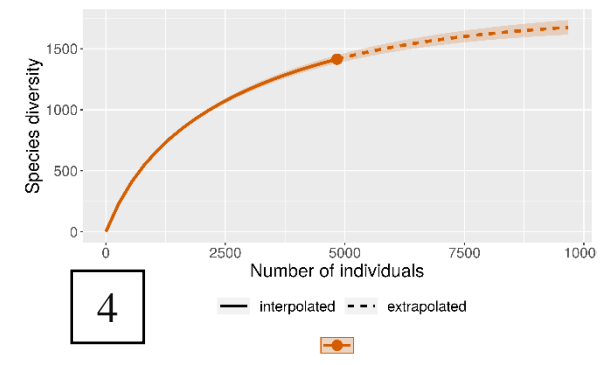
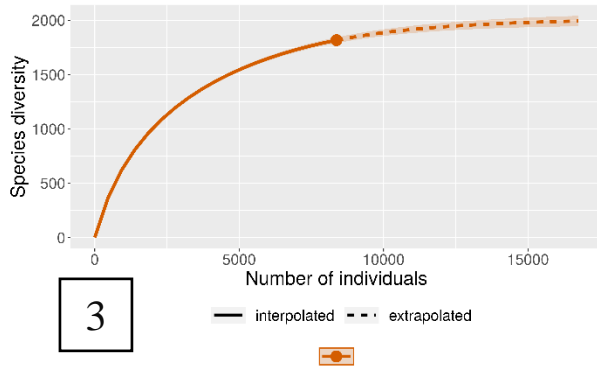
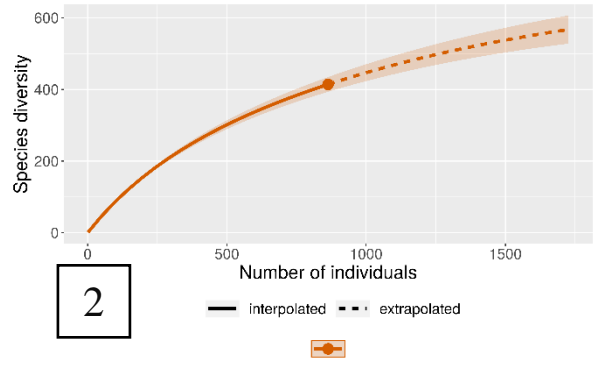
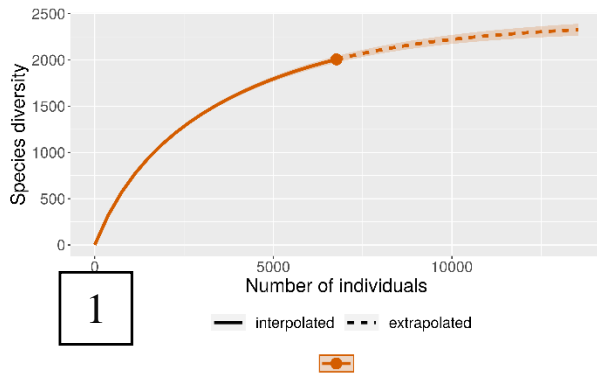
Table S4_Comparing different species richness and records for each ecoregion

ID	Ecoregions	Species	Specimen records
1	Chin Hills-Arakan Yoma Montane Forests	2006	6767
2	Eastern Himalayan Alpine Shrub and Meadows	414	863
3	Irrawaddy Dry Forests	1817	8369
4	Irrawaddy Freshwater Swamp Forests	1414	4838
5	Irrawaddy Moist Deciduous Forests	2799	26876
6	Kayah-Karen Montane Rain Forests	744	1592
7	Mizoram-Manipur-Kachin Rain Forests	1688	4142
8	Myanmar Coast Mangroves	1351	3958
9	Myanmar Coastal Rain Forests	2260	7036
10	Northern Indochina Subtropical Forests	3312	16240
11	Northern Triangle Subtropical Forests	2454	6574
12	Northern Triangle Temperate Forests	821	2122
13	Nujiang Langcang Gorge Alpine Conifer and Mixed Forests	216	444
14	Tenasserim-South Thailand Semi-Evergreen Rain Forests	671	1163

Fig.S1_ Individual based rarefaction curves for 14 ecoregions. Rarefaction curves showing species diversity differences among ecoregion in Myanmar. (1) Chin Hills-Arakan Yoma Montane Forests (2) Eastern Himalayan Alpine Shrub and Meadows (3) Irrawaddy Dry Forests (4) Irrawaddy Freshwater Swamp Forests (5) Irrawaddy Moist Deciduous Forests (6) Kayah-Karen Montane Rain Forests (7) Mizoram-Manipur-Kachin Rain Forests (8) Myanmar Coast Mangroves (9) Myanmar Coastal Rain Forests (10) Northern Indochina Subtropical Forests (11) Northern Triangle Subtropical Forests (12) Northern Triangle Temperate Forests (13) Nujiang Langcang Gorge Alpine Conifer and Mixed Forests (14) Tenasserim-South Thailand Semi-Evergreen Rain Forests.

Rarefaction analyses

We used the rarefaction curves for two purposes. Firstly, to estimate how many species are really in each ecoregion, and how much sampling is needed to adequately survey the number of species within any given ecoregions. The second is to determine how extensively we have sampled the species in the ecoregions. Rarefaction curves have an asymptote.



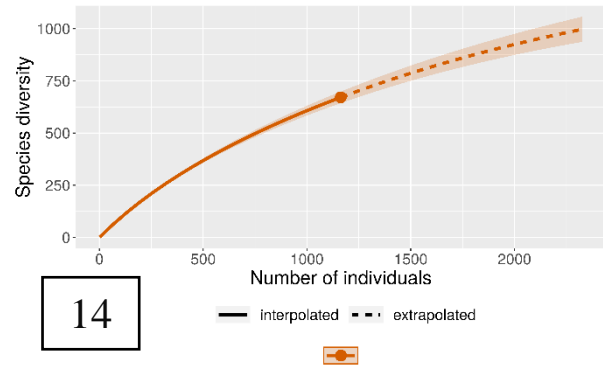
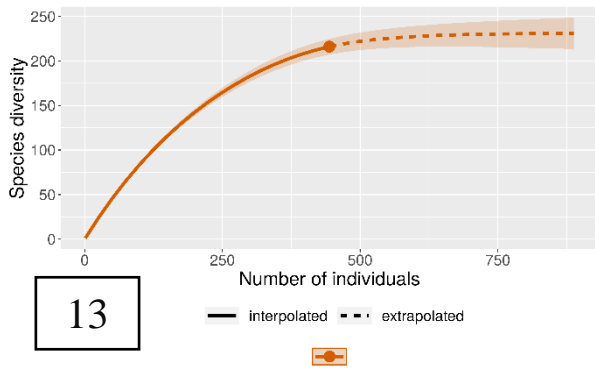
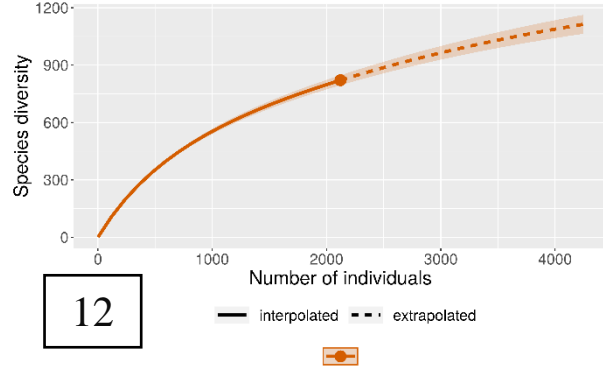
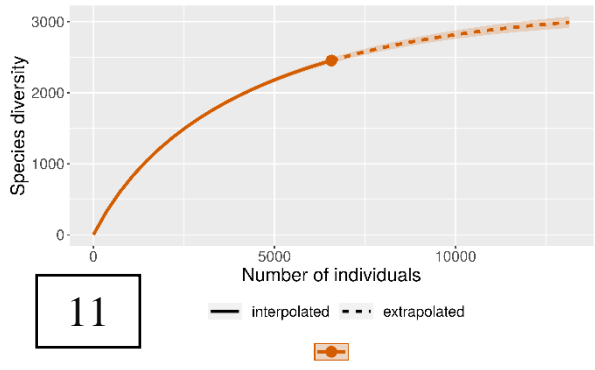
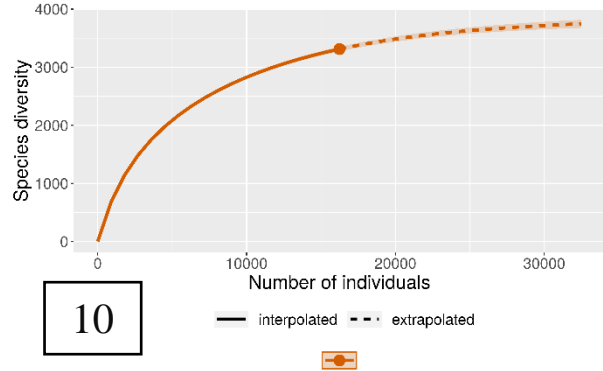
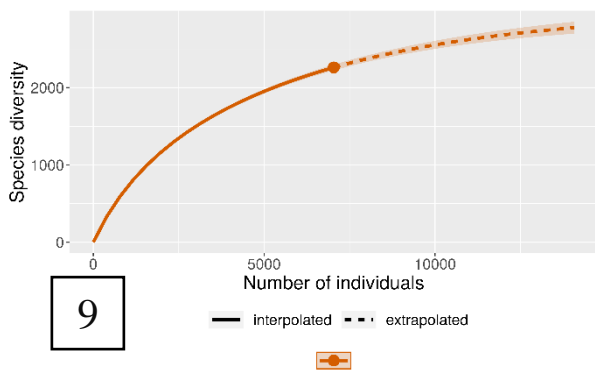
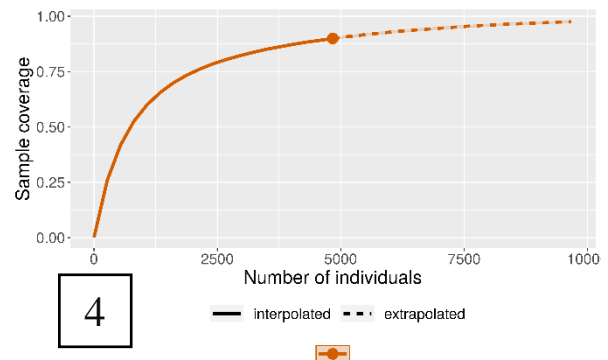
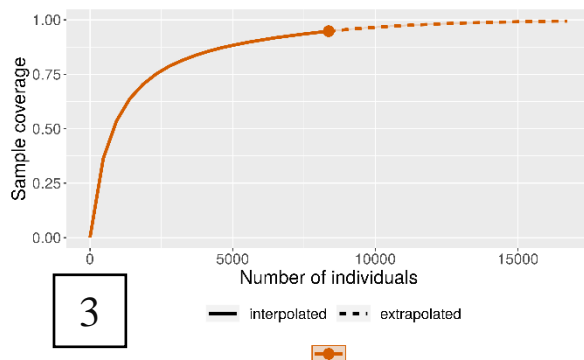
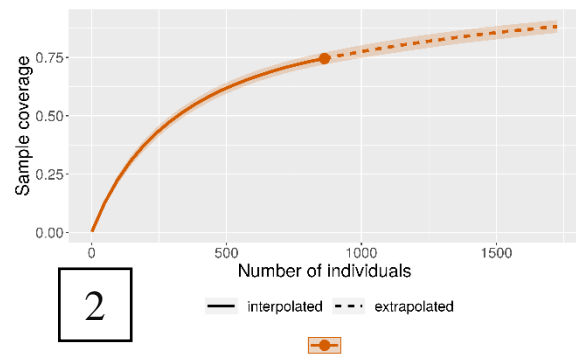
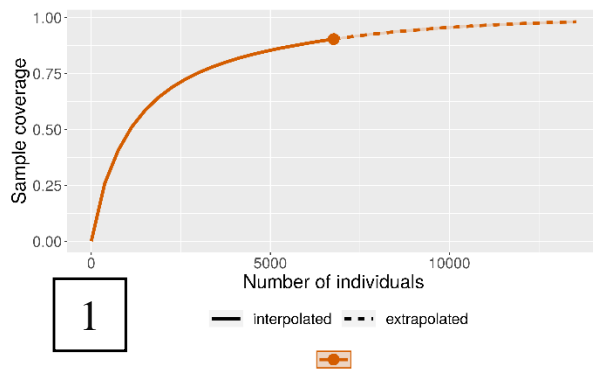
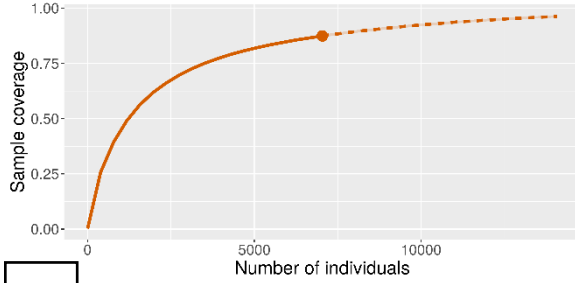


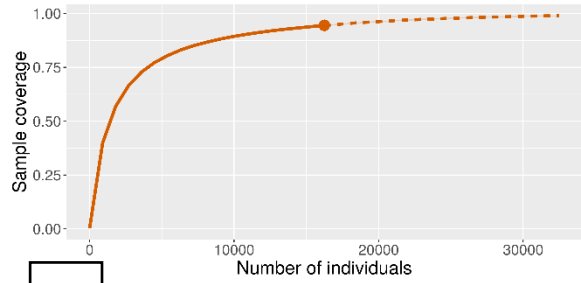
Fig.S2_ Sample completeness curve for each ecoregion. (1) Chin Hills-Arakan Yoma Montane Forests (2) Eastern Himalayan Alpine Shrub and Meadows (3) Irrawaddy Dry Forests (4) Irrawaddy Freshwater Swamp Forests (5) Irrawaddy Moist Deciduous Forests (6) Kayah-Karen Montane Rain Forests (7) Mizoram-Manipur-Kachin Rain Forests (8) Myanmar Coast Mangroves (9) Myanmar Coastal Rain Forests (10) Northern Indochina Subtropical Forests (11) Northern Triangle Subtropical Forests (12) Northern Triangle Temperate Forests (13) Nujiang Langcang Gorge Alpine Conifer and Mixed Forests (14) Tenasserim-South Thailand Semi-Evergreen Rain Forests.





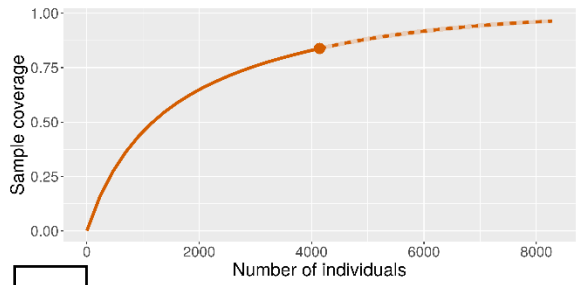
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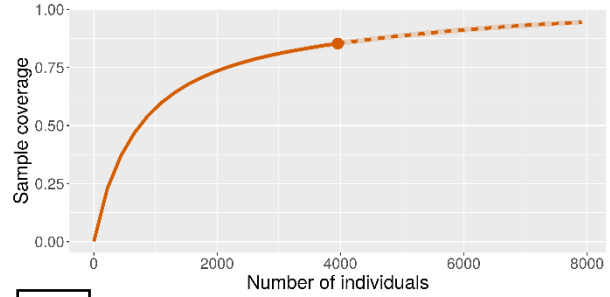
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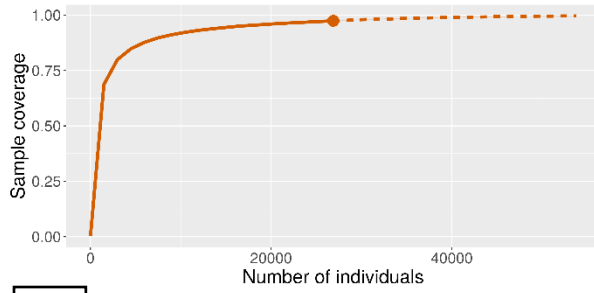
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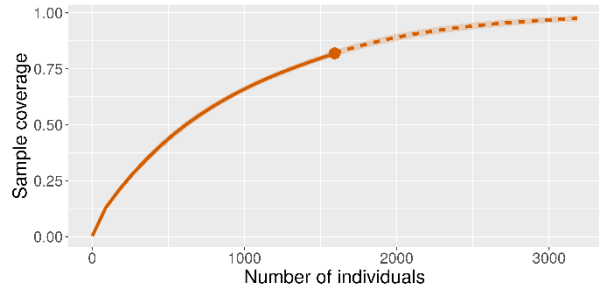
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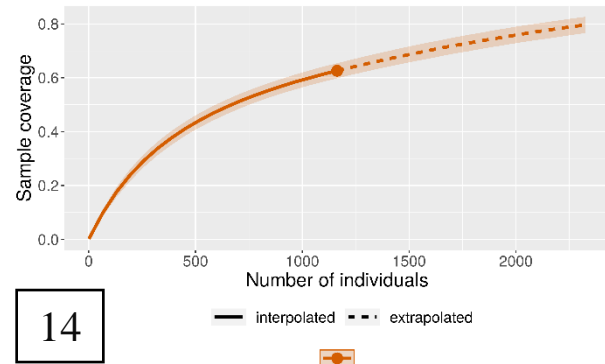
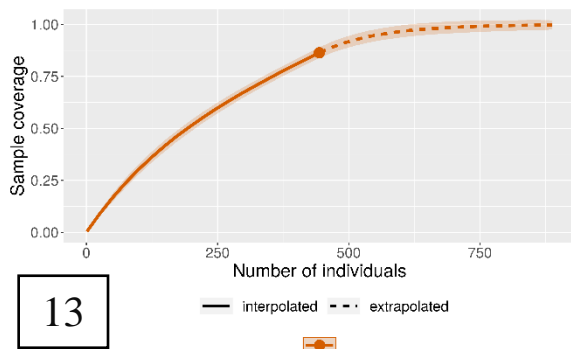
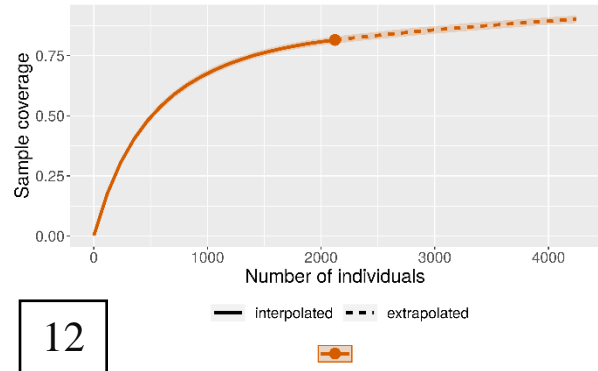
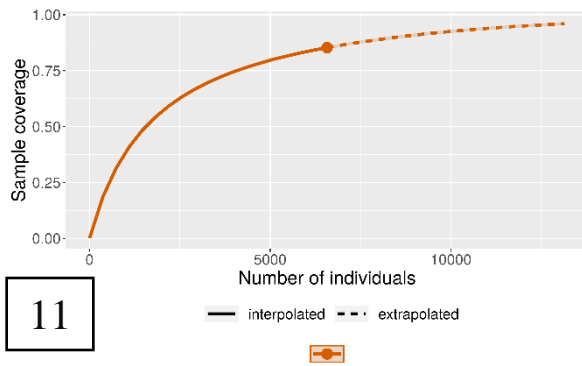
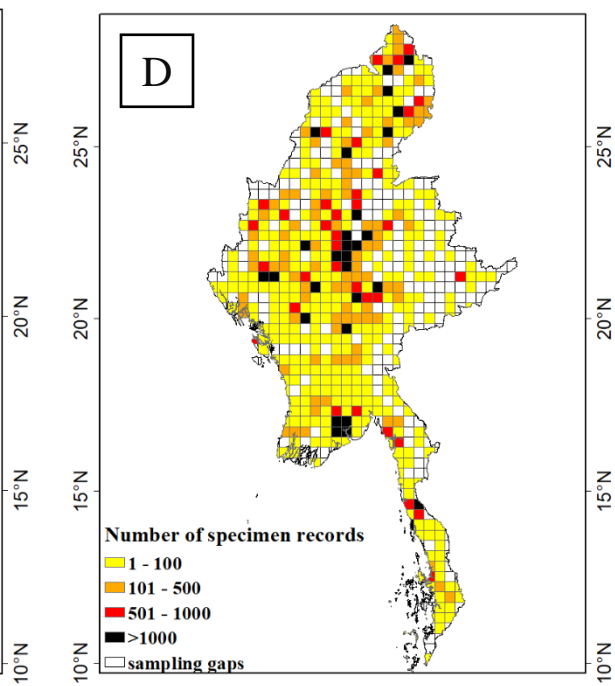
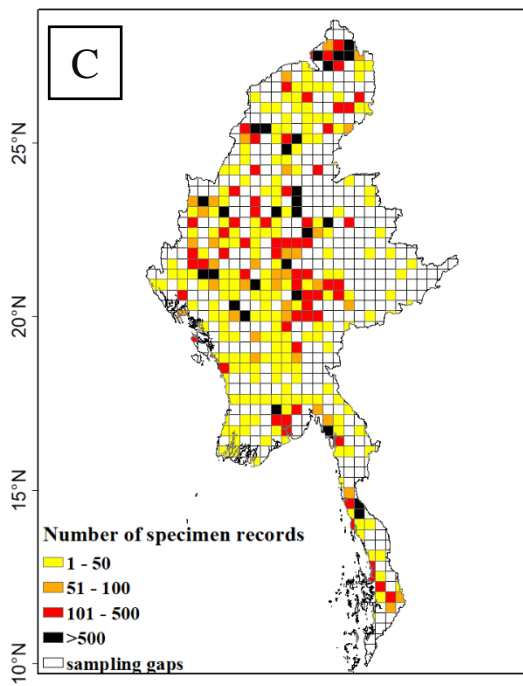
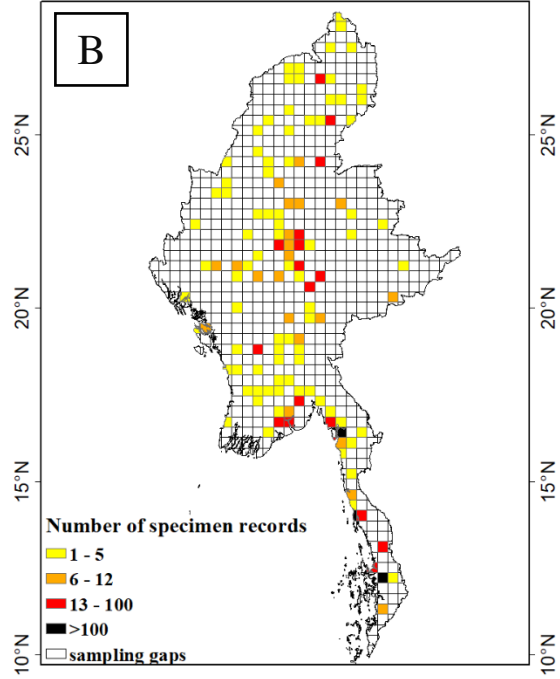
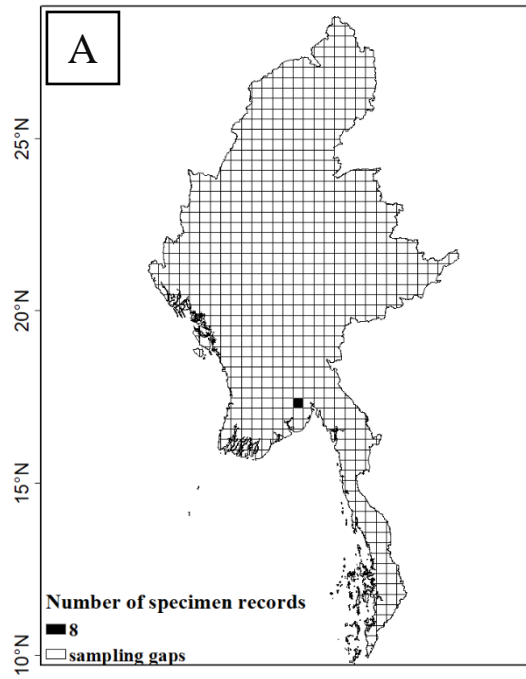


Fig.S3_ Age of digitization and number of records per 30km² grid cell for (A) 1700-1800 (B) 1800-1900 (C) 1900-1950 (D) 1950-2000, (E) after2000 and (F) 1700-2020

The number of collections in each grid cell ranged from 0 to 2902 after the year 2000, from 0 to 2693 between the years 1950 and 2000, from 0 to 1024 between the years 1900 and 1950, from 0 to 289 between the years 1800 and 1900, and from 0 to 8 from the years 1700 to 1800. The total number of specimen records in each grid cell ranged from 0 to 3525. Moreover, no grid cell averages at least 1 specimen/ km² of land area.



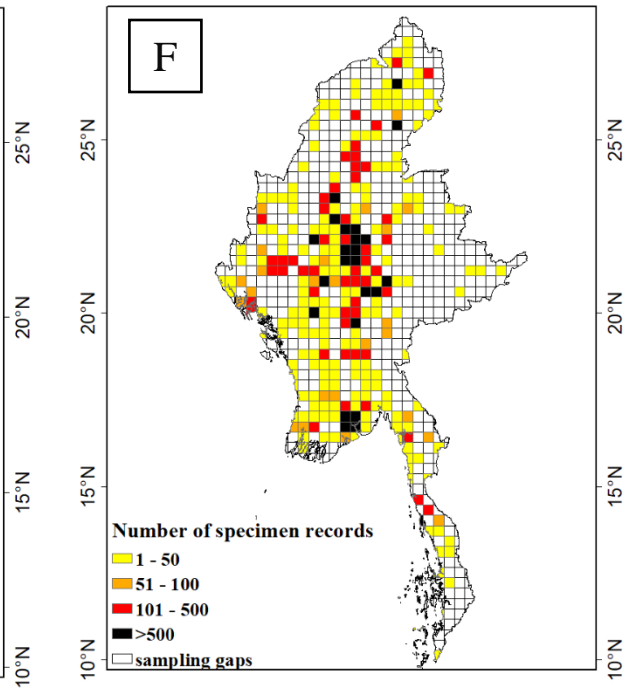
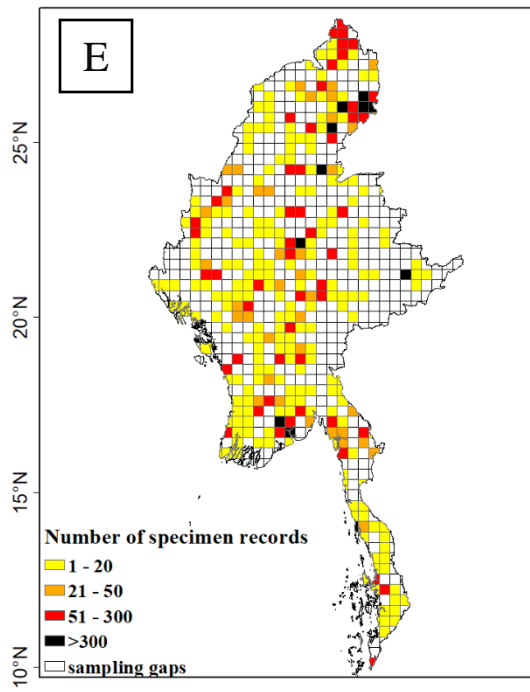
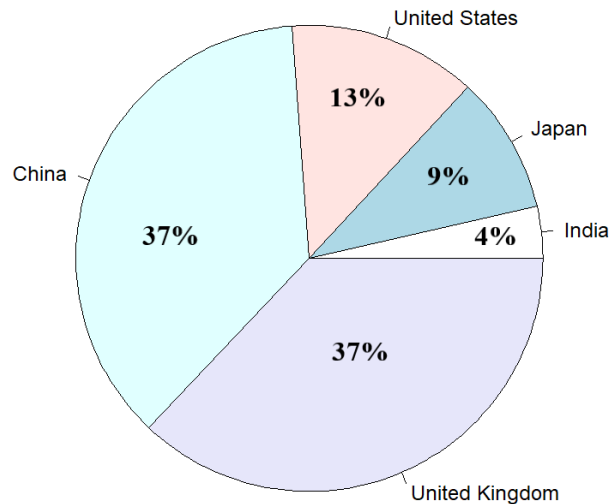


Fig.S4_ The top five countries with the most species are solely documented in collections stored outside Myanmar



Floristic pattern at political unit level

A total of five families represents 26% of the flora of Myanmar: (1) Orchidaceae (1,206 species, 7.4%), (2) Leguminosae (1,016 species, 6.23%), (3) Poaceae (802 species, 4.92%), (4) Compositae (618 species, 3.79%), and (5) Rubiaceae (590 species, 3.62%). In the angiosperm group, the most important families in terms of the number of species are the Orchidaceae, Ericaceae, Rosaceae, Primulaceae, Leguminosae, Malvaceae, Lamiaceae, and Acanthaceae. The gymnosperms that dominate Myanmar are the Cupressaceae, Gnetaceae, Pinaceae, Podocarpaceae, and Taxaceae families. There are four dominant families of pteridophytes in Myanmar, namely Dryopteridaceae, Lycopodiaceae, Polypodiaceae, Davalliaceae, Pteridaceae and Schizaeaceae. The Bryaceae, Pottiaceae, Dicranaceae, and Sematophyllaceae families dominate the bryophytes group in Myanmar. The geographic distribution of Myanmar's native higher plant species is

uneven, with most of them concentrated in the northern regions. Based on the distribution of native higher plant species in different States and Regions, the geographical distribution can be categorized into five hierarchical levels. Level - 1 is made up of states and regions with plant species ranging from 4,003 to 5,417, including only Kachin State, which has a higher species diversity than other states and regions. Consequently, Kachin State has the most native higher plant species in Myanmar. Level - 2 includes Tanintharyi Region, Mandalay Region and Shan State, which have between 2,903 and 4,002 species. Level - 3 states and regions include Mon State, Yangon Region, Bago Region, Chin State and Sagaing Region, where the number of species varies between 1,315 and 2,902. There are 858 to 1,314 species present in Level 4, which includes the Magway Region. Level -5 includes states and regions with a number of species between 112 and 857, including the Ayeyarwady region, Kayin state, Rakhine state, Kayah state, and NayPyiTaw region. Township level geographic distribution was also analyzed. The results indicate that higher plant species are found in isolated areas in Myanmar's national parks, wildlife sanctuaries, and local mountain regions. At the township level, Mount Victoria Mountain, Pyin Oo Lwin National Garden, Inle Lake and Mount Popa, Hkakaborazi National Park, and Hponkanrazi Wildlife Sanctuary are the most biodiversity hotspots.

Fig.S5_ Collection gap areas

COLLECTION GAP AREAS

In township level, 17 counties are still gap for specimen collection in my analysis. Namely, (1) Dedaye, (2) Kyaiklat, (3) Dagon Myothit (Seikkan), (4) Hpasawng, (5) Shadaw, (6) Kamma, (7) Munaung, (8) Poke Ba Thi Ri, (9) Myothit, (10) Mongpan, (11) Mongping, (12) Monghsu, (13) Mongyang, (14) Narphan, (15) Kunlong, (16) Konkyan, (17) Kyunhla. Therefore, we should focus in these township areas for much more botanical collections and explorations are needed to better understand the biodiversity of Myanmar.

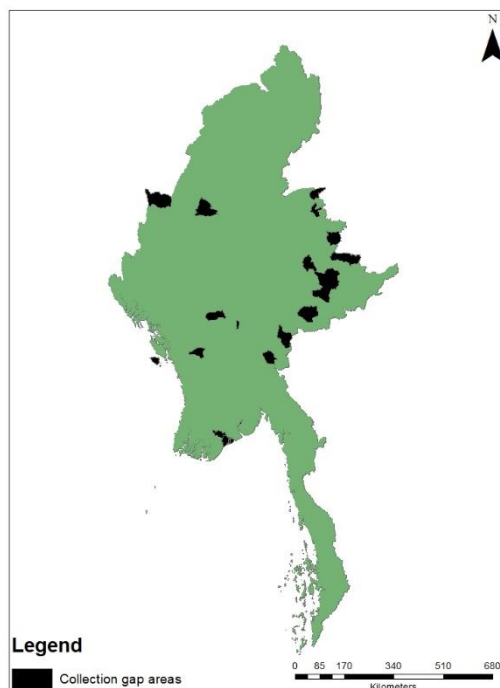
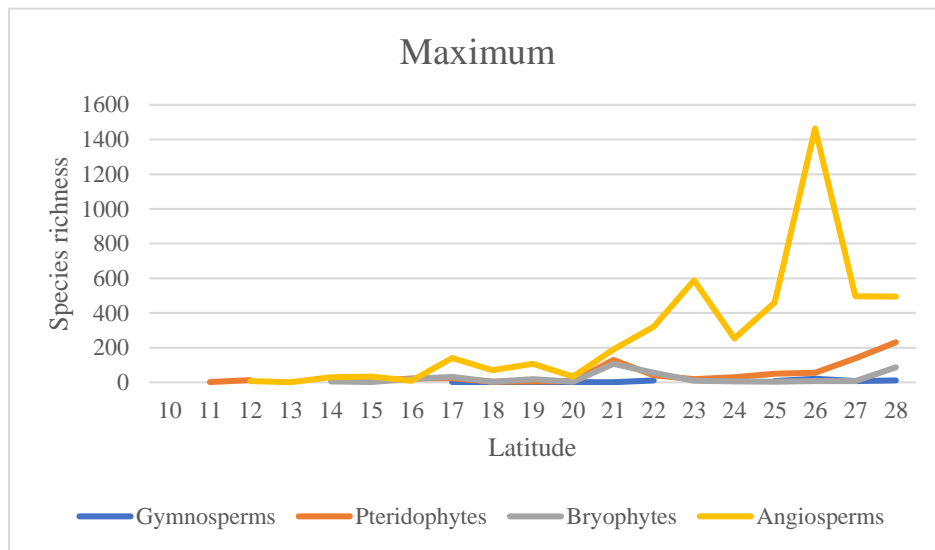


Fig.S6_Latitudinal range sizes of species ranged limits

Latitudinal range sizes of species ranged limits

Maximum and minimum latitudes of occurrence for angiosperm species range peaks were found 26°N and 12°N, especially in Northern Triangle Subtropical Forests and Tenasserim Semi-Evergreen Rain Forests. Gymnosperm species range northern limits peaked 26°N and Southern limits 21°N. High peaks were clear on Northern Triangle Subtropical Forests, Shan hills pine savanna and Shan warm temperate rainforest. Pteridophytes and bryophytes northern range limits peaked at 28°N and minimum range limits peaked at 21°N.



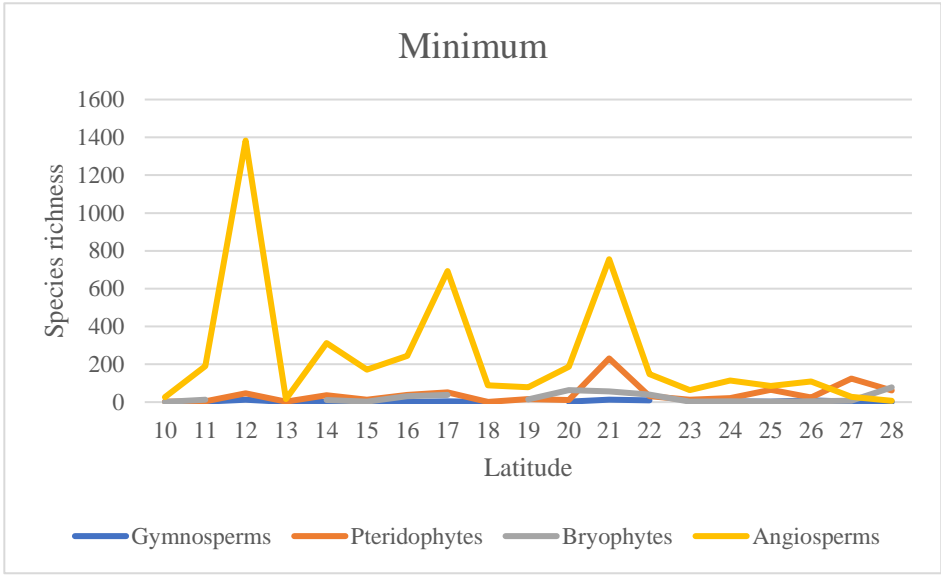


Fig.S8_Geographic distribution of native plant species at states/regions and township level in Myanmar

