

附录3 东北亚地区大型真菌部分特有物种生境图片。**A**: 污白囊小伞; **B**: 叉囊靴耳; **C**: 黑龙江盖氏盘菌; **D**: 畸果无丝盘菌; **E**: 枫生无柄盘菌; **F**: 东亚暗孔菌; **G**: 坚实鹅膏**(Malysheva et al., 2025)**; **H**: 绒格氏蘑**(Qi et al., 2023)**; **I**: 亚合生栓齿菌**(Mu et al., 2019)**; **J**: 吉林链担耳**(Wang & Bau, 2024)**; **K**: 索氏靴耳**(Malysheva & Malysheva VF, 2025)**; **L**: 韩国马鞍菌**(Park et al, 2025)**; **M**: 蛮汉假花耳**(Wang & Bau, 2024)**; **N**: 蒙古桑黄(侯伟男等, **2023)**; **O**: 朱氏地星**(Rebriev et al., 2023)**; **P**: 白拟金钱菌**(Cho et al., 2025)**; **Q**: 灰长柄马鞍菌**(Park et al., 2025)**; **R**: 长毛小孔盘菌**(Tochihara et al., 2021)**; **S**: 龙谷红菇**(Shimono et al., 2021)**; **T**: 光陵炭角菌**(Kim et al., 2025)**; **U**泥炭藓生小鳞伞**(Burenbaatar et al., 2024)**; **V**: 大孢星座革菌**(Maekawa, 2021)**; **W**: 蒙古地锤菌**(Burenbaatar et al., 2025)**; **X**: 烟色光柄菇**(Malysheva et al, 2024)**; **Y**: 松地口蘑**(Aoki et al., 2024)**。

Appendix 3 Habitat photographs of selected endemic macrofungal species in Northeast Asia. A, *Chlorophyllum nivalis*; B, *Crepidotus furcaticystidiosus*; C, *Galiella amurensis*; D, *Neolecta irregularis*; E, *Pezicula acericola*; F, *Phaeolus asiae-orientalis*; G, *Amanita firma* (Malysheva et al., 2025); H, *Gerhardtia tomentosa* (Qi et al., 2023); I, *Phellodon subconfluens* (Mu et al., 2019); J, *Sirobasidium jilinense* (Wang & Bau, 2024); K, *Crepidotus sokolovii* (Malysheva & Malysheva VF, 2025); L, *Helvella koreana* (Park et al., 2025); M, *Dacryopinax manghanensis* (Wang & Bau, 2024); N, *Sanghuangporus mongolicus* (Hou et al., 2023); O, *Geastrum juliae* (Rebriev et al., 2023); P, *Collybiopsis albida* (Cho et al., 2025); Q, *Helvella griseomacropus* (Park et al., 2025); R, *Microstoma longipilum* (Tochihara et al., 2021); S, *Russula ryukokuensis* (Shimono et al., 2021); T, *Xylaria gwangneungensis* (Kim et al., 2025); U, *Pholiotina sphagnicola* (Burenbaatar et al., 2024); V, *Asterostroma macrosporum* (Maekawa, 2021); W, *Cudonia mongolica* (Burenbaatar et al., 2025); X, *Pluteus fumidus* (Malysheva et al, 2024); Y, *Tricholoma matsushimeji* (Aoki et al., 2024).

参考文献

Aoki W, Fukuda M, Yamada A (2024) Two new *Tricholoma* species in the sect. *Genuina* from pine forests in Japan. Mycoscience, 65, 278–287.

Burenbaatar G, Ganbaatar B, Chen ZQ, Bau T (2025) *Cudonia mongolica* sp. nov. (Cudoniaceae, Rhytismatales) from Mongolia. Phytotaxa, 683, 156–164.

Malysheva E, Malysheva V (2024) Description of two new *Pluteus* species of sect. *Pluteus* (Agaricales, Pluteaceae) from the Russian Far East based on morphological and molecular data. Mycological Progress, 23, 56.

Malysheva E, Malysheva V (2025) New species and new record of *Crepidotus* (Crepidotaceae, Agaricales) from Sikhote-Alin, Russia. Phytotaxa, 706, 255–268.

Malysheva EF, Svetasheva TY, Malysheva VF (2025) Multi-gene phylogeny and morphological study reveal three new species of *Amanita* in the Russian Far East. Mycological Progress, 24, 93.

Mu YH, Wu F, Yuan HS (2019) Hydnaceous fungi of China 7. Morphological and molecular characterization of *Phellodon subconfluens* sp. nov. from temperate, deciduous forests. Phytotaxa, 414, 280–288.

Park SY, Kim S, Park E, Kwag YN, Eo JK, Lee H (2025) Two new species and a new record of *Helvella* (Helvellaceae, Pezizales) from South Korea. Phytotaxa, 732, 147–162.

Park SY, Sohee K, Eunjin K, Eo JK, Lee H (2025) Taxonomic revision of Korean saddle fungi (*Helvella*, Helvellaceae). Mycobiology, 53, 79–112.

Qi Y, Xu F, Yang ZQ, Hou JX, Xu AG, Guo HB, Yu XD, Yang RH (2023) *Gerhardtia tomentosa* and *Ossicaulis borealis* (Agaricales, Lyophyllaceae)—Two new species from Northeast China. Frontiers in Microbiology, 14, 1118853.

Shimono Y, Kasuya T, Hosaka K (2021) *Russula ryukokuensis* sp. nov., an outstanding species of the genus *Russula* (Russulaceae) having minute Basidiomata from Japan. Bulletin of the National Museum of Nature and Science, Series B, 47, 1–12.

Tochihara Y, Hirao T, Ohmae M, Hosaka K, Hosoya T (2021) *Microstoma longipilum* sp. nov. (Sarcoscyphaceae, Pezizales) from Japan. Mycoscience, 62, 217–223.

Wang X, Bau T (2024) Four new species of jelly fungi from northeastern China. Journal of Fungi, 10, 480.