

## **Polypores from Altay and Tian Mts. in Xinjiang, northwest China**

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**Abstract** – 103 polypores based on about 300 collections with their hosts are reported from the Altay and Tianshan in Xinjiang Autonomous Region of northwest China. Most of species are new to Xinjiang. *Polyporus xinjiangensis* is redescribed and illustrated based on a new record of this species, previously known only from the type specimen, which is sterile.

**Aphylophorales, checklist, *Polyporus xinjiangensis*, taxonomy**

### **INTRODUCTION**

This paper belongs to a series of studies devoted to the wood-rotting fungi from northwest China (Dai *et al.*, 2006). The Xinjiang Autonomous Region with its 1.66 million km<sup>2</sup> is the largest inland Chinese province. However, most areas of Xinjiang are covered by desert or semi-desert because an arid or semiarid climate, and forests are scattered to some limited areas.

There are a few reports on wood-inhabiting fungi from Xinjiang, with about 20 poroid species recorded from this area (Teng, 1963; Zhao, 1998; Zhao & Zhang, 1992). During August of 2004 and 2006, polypores were extensively collected in 5 different forest areas of Xinjiang (Fig. 1). Hundred and three poroid Aphylophorales were identified from these collections. Because most of these species were not previously recorded in Xinjiang, this paper provides a checklist of the polypores with the hosts for each species.

Among the collected species, special attention has been given to *Polyporus xinjiangensis* J.D. Zhao & X.Q. Zhang, a rare species previously known from the type specimen only (Zhao *et al.*, 1981). The species is carefully redescribed.

### **MATERIALS AND METHODS**

The authors collected around 300 specimens from 5 natural reserves or forest parks in Xinjiang (Fig. 1). Kanasi Nature Reserve (in Buerjin County) is in the southern slope of Altay Mts in northern Xinjiang (1 in Fig. 1). The most



Fig. 1. The locations of the research area.

important coniferous trees in the reserve are *Larix sibirica* and *Picea obovata*, and the common deciduous trees are *Betula rotundifolia* and *Salix pentandra*. Guozigou Forest Park (in Huocheng County), Xitianshan Nature Reserve (in Gongliu County) and Nalati Forest Park (in Xinyuan County) are in the west of Tian Mts. (2, 3, 4 in Fig. 1). The main trees of these areas are *Picea schrenkiana* var. *tianshanica* and *Betula tianshanica*, with *Sorbus tianshanica* and *Ulmus laciniata* occurring occasionally. Tianshan Nature Reserve (in Fukang County) is in the east of Tian Mts. (5 in Fig. 1). *Picea schrenkiana* var. *tianshanica* is the

dominant species in the forest, and the vegetation in the area is almost the pure spruce forest. *Populus* and *Salix* grow rarely in the forest. Ten specimens were collected in Jiadengyu nature forests of Buerjin County and parks in Urumqi.

The study is based mainly on the collections by the authors from Xinjiang during 2004 and 2006, and deposited at the herbarium of the Institute of Applied Ecology, the Chinese Academy of Sciences (IFP). Some specimens collected by other mycologists from Xinjiang were examined as well, and these specimens are preserved at the herbarium of the Institute of Microbiology, the Chinese Academy of Sciences (HMAS).

In the text the following abbreviations are used: L = mean spore length (arithmetical mean of all spores), W = mean spore width (arithmetical mean of all spores), Q = variation in the L/W ratios between the specimens studied (quotient of the mean spore length and the mean spore width of each specimen), n = the number of spores measured from given number of specimens. In presenting the variation in the size of spores, 5% of the measurements were excluded from each end of the range, and are given in parentheses; IKI stands for Melzer's reagent and KOH for 5% potassium hydroxide, and CB is the abbreviation of Cotton Blue. CB+ means cyanophilous and CB- acyanophilous; IKI- means both inamyloid and indextrinoid. Special color terms are from anonymous (1969) and Peterson (1996).

## RESULTS

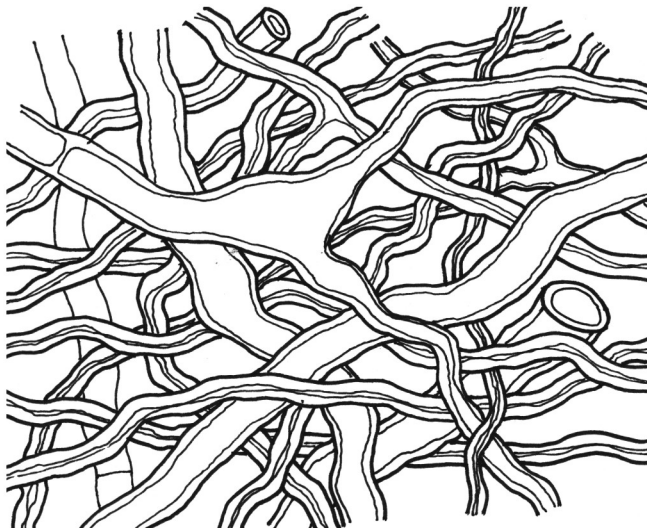
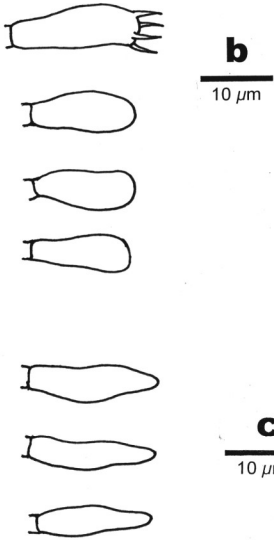
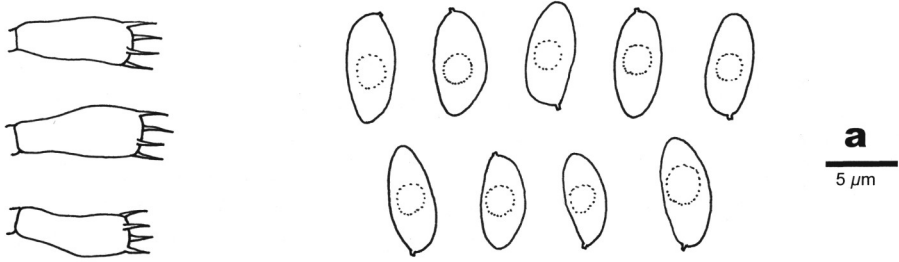
### *Polyporus xinjiangensis* J.D. Zhao & X.Q. Zhang

(Fig. 2)

This species was originally described from Xinjiang (Zhao *et al.*, 1981), but its type (HMAS 39487, holotype) is totally sterile. The collection *Dai* 7598 is the second one, and is in good condition. Because the species is poorly reported and the data in its original publication were incorrect, the species is re-described below.

*Fruitbody.* — Basidiocarp annual, laterally stipitate, imbricate, soft leathery and watery when fresh, without odour or taste, becoming woody hard or bone hard upon drying. Pilei fan-shaped to semi-circular, projecting up to 10 cm, 14 cm wide, 1.5 cm thick at centre; margin undulating, sometime lobed, obtuse. Pileal surface glabrous, azonate, pale buff to pinkish buff when juvenile, darkening with age, chestnut black when mature, colour unchanged when bruised or drying, without radial stripes. Pore surface cream when fresh, clay-buff when dry; pores circular to angular, strongly decurrent on stipe, randomly arranged, 4-5 per mm; dissepiments thin to fairly thick, entire or slightly lacerate. Context cream and corky when dry, up to 1.3 cm thick; tube layer concolorous with poroid surface, tubes brittle to bone hard when dry, up to 2 mm long. Stipe short and thick, bearing a black cuticle at the lower part, velutinous to glabrous, corky, up to 2.5 cm long and 1.5 cm in diam.

*Hyphal structure.* — Hyphal system dimitic; generative hyphae without clamp connections; skeleto-binding hyphae thick-walled with a narrow lumen or subsolid, dendritically branched and tapering in the end; tissue unchanged in KOH.



*Context.* — Contextual hyphae strongly interwoven; generative hyphae frequent, hyaline, thin- to thick-walled, occasionally branched, mostly 3-5  $\mu\text{m}$  in diam; some generative hyphae frequently inflated, 12-25  $\mu\text{m}$  in diam; skeleto-binding hyphae dominant, IKI-, weakly CB+, skeletal part thick-walled with a narrow lumen to subsolid, 4-6.5  $\mu\text{m}$  in diam; binding part 2.5-4  $\mu\text{m}$  in diam. Hyphae in stipe similar to those in context.

*Tubes.* — Tramal hyphae gelatinized, strongly interwoven without orientation; generative hyphae frequent, hyaline, thin-walled, moderately branched, 2-3.8  $\mu\text{m}$  in diam; skeleto-binding hyphae frequent, IKI-, weakly CB+, skeletal part with a distinct lumen, 3-5  $\mu\text{m}$  in diam, binding part mostly subsolid, 2-3.5  $\mu\text{m}$  in diam. Hyphal paegs rarely present. Cystidia absent; cystidioles frequent, subulate, 14-19  $\times$  4-5  $\mu\text{m}$ . Basidia clavate, with a simple septum and four sterigmata, 14-18  $\times$  5-7  $\mu\text{m}$ ; basidioles slightly smaller, otherwise in shape similar to basidia.

*Spores.* — Basidiospores cylindrical, slightly tapering at apex, hyaline, thin-walled, smooth, usually bearing one guttule, IKI-, CB-, (6.8-)7.1-8.5(-9)  $\times$  (3.1-)3.2-3.8(-3.9)  $\mu\text{m}$ , L = 7.83  $\mu\text{m}$ , W = 3.63  $\mu\text{m}$ , Q = 2.16 (n = 30/1).

*Specimens examined.* — **China**, Xinjiang Autonomous Region, Fukang County, Tianshan Nat. Res., on fallen decorticated trunk of *Populus* in open area, 1.VIII.2006 *Dai* 7598. Tie Mts., alt. 3200, 29.VI.1977 *Mao* 39 (HMAS 39487, holotype).

## DISCUSSIONS

*Polyporus xinjiangensis* is characterized by imbricate basidiocarp, chestnut black upper surface, short and thick stipe with a black cuticle, presence of subulate cystidioles, absent of clamp connection, strongly inflated hyphae in context, and by growing on *Populus*. *Polyporus badius* (Pers.: Gray) Schwein. is closely related to *P. xinjiangensis*; both species have dark brown to bay pileal upper surface and stipe, simple septate generative hyphae. The basidiospores of *P. badius* (6.5-8  $\times$  3-3.8  $\mu\text{m}$ , L = 7.10  $\mu\text{m}$ , W = 3.25  $\mu\text{m}$ , Q = 2.19) are similar to those in *P. xinjiangensis* as well. *P. xinjiangensis* might in fact represent a variety of the former. It differs by having thicker pileus (up to 1.5 cm vs. less than 1 cm in *P. badius*), a thicker stipe (up to 1.5 cm in diam vs. less than 0.5 cm in diam in *P. badius*), and strongly inflated contextual hyphae (12-25  $\mu\text{m}$  in diam, no inflated hyphae in *P. badius*). In addition, *P. xinjiangensis* was found in a very dry environment, while *P. badius* often occurs in moist forest. For these reasons and for the time being, we keep *Polyporus xinjiangensis* as an independent species, and more materials are needed to confirm the species.

*Polyporus xinjiangensis* is similar to *Polyporus varius* Pers.: Fr. by sharing the short and black stipe, but the upper surface of *P. varius* is usually pale brown and bears radial stripes. In addition, *P. varius* has clamp connections on its generative hyphae.



Fig. 1. Anatomical details of *Polyporus xinjiangensis* J.D. Zhao & X.Q. Zhang (drawn from *Dai* 7598). — a: Basidiospores. — b: Basidia and basidioles. — c: Cystidioles. — d: Hyphae from trama. — e: Hyphae from context.

## CHECKLIST

The checklist is arranged alphabetically according to genera and the author citations are abbreviated follow the second edition of Authors of Fungal Names (<http://www.indexfungorum.org/AuthorsOfFungalNames.htm>). Substrate and collecting data are supplied after the name of each species. The localities and hosts are listed alphabetically. The concept of polypores circumscribed here is in a wide sense, including the Polyporaceae, Ganodermataceae, and poroid species in the Hymenochaetaceae and Corticiaceae.

- Albatrellus ovinus* (Schaeff.: Fr.) Kotl. & Pouzar, Zhaosu County, HMAS 39415.
- Amylocystis lapponica* (Romell) Singer, Huocheng County, Guozigou Forest Park, *Picea*, Wei 1491a.
- Anomoporia albolutescens* (Romell) Pouzar, Fukang County, Tianshan Nat. Res., *Picea*, Dai 7607, Wei 1695. Gongliu County, Xitianshan Nat. Res., *Picea*, Wei 1520.
- Anomoporia flavissima* Niemelä, Buerjin County, Kanasi Nat. Res., *Larix*, Wei 1368. Gongliu County, Xitianshan Nat. Res., *Picea*, Wei 1610. Xinyuan County, Nalati Forest Park, angiosperm, Wei 1665.
- Anomoporia myceliosa* (Peck) Pouzar, Buerjin County, Kanasi Nat. Res., *Picea*, Wei 1382.
- Antrodia hingganensis* Y.C. Dai & Penttilä, Buerjin County, Kanasi Nat. Res., *Larix*, Wei 1342, 1437 & 1465. Fukang County, Tianshan Nat. Res., *Picea*, Dai 7616.
- Antrodia malicola* (Berk. & M.A. Curtis) Donk, Buerjin County, Kanasi Nat. Res., *Betula*, Wei 1458.
- Antrodia primaeva* Renvall & Niemelä, Buerjin County, Kanasi Nat. Res., *Larix*, Wei 1476. Fukang County, Tianshan Nat. Res., *Picea*, Wei 1672a.
- Antrodia serialis* (Fr.) Donk, Buerjin County, Kanasi Nat. Res., *Picea*, Wei 1488a. Fukang County, Tianshan Nat. Res., *Picea*, Dai 7608, 7612, 7623 & 7626, Wei 1673, 1674, 1681, 1686, 1703 & 1706. Gongliu County, Xitianshan Nat. Res., gymnosperm, Wei 1579; *Picea*, Wei 1512, 1526 & 1609; *Populus*, Wei 1547. Huocheng County, Guozigou Forest Park, *Picea*, Wei 1502.
- Antrodia variiformis* (Peck) Donk, Buerjin County, Kanasi Nat. Res., *Larix*, Wei 1485.
- Antrodia xantha* (Fr.: Fr.) Ryvardeen, Buerjin County, Kanasi Nat. Res., *Larix*, Wei 1402, 1449, 1479 & 1486. Fukang County, Tianshan Nat. Res., *Picea*, Wei 1702. Huocheng County, Guozigou Forest Park, *Pinus*, Wei 1479a.
- Antrodiella ussuriï* Y.C. Dai & Niemelä, Gongliu County, Xitianshan Nat. Res., gymnosperm, Wei 1538, 1540 & 1550; *Picea*, Wei 1603. Xinyuan County, Nalati Forest Park, *Alnus*, Wei 1668.
- Bjerkandera adusta* (Willd.: Fr.) P. Karst., Buerjin County, Kanasi Nat. Res., *Betula*, Wei 1360, 1370 & 1468; *Populus*, Wei 1455. Fukang County, Tianshan Nat. Res., *Picea*, Dai 7586, 7589, 7590, 7592, 7593, 7605 & 7611. Gongliu County, Xitianshan Nat. Res., angiosperm, Wei 1569; *Malus*, Wei 1555; *Populus*, Wei 1549. Huocheng County, Guozigou Forest Park, *Picea*, Wei 1463a. Xinyuan County, Nalati Forest Park, *Populus*, Wei 1619.
- Bjerkandera fumosa* (Pers.: Fr.) P. Karst., Buerjin County, Kanasi Nat. Res., *Betula*, Wei 1441. Urumqi, *Populus*, Dai 7599. Xinyuan County, Nalati Forest Park, *Populus*, Wei 1667.

- Ceriporia viridans* (Berk. & Broome) Donk, Xinyuan County, Nalati Forest Park, angiosperm, *Wei* 1656.
- Ceriporiopsis mucida* (Pers.: Fr.) Gilb. & Ryvardeen, Buerjin County, Jiadengyu, *Larix*, *Wei* 1493, 1494, 1495 & 1497. Fukang County, Tianshan Nat. Res., *Picea*, *Wei* 1704.
- Ceriporiopsis resinascens* (Romell) Domański, Buerjin County, Kanasi Nat. Res., *Salix*, *Wei* 1359. Gongliu County, Xitianshan Nat. Res., angiosperm, *Wei* 1586.
- Cerrena unicolor* (L.: Fr.) Murrill, Buerjin County, Kanasi Nat. Res., *Betula*, *Wei* 1358. Gongliu County, Xitianshan Nat. Res., angiosperm, *Wei* 1543.
- Daedalea dickinsii* Yasuda, Xinyuan County, Nalati Forest Park, *Populus*, *Wei* 1650.
- Daedaleopsis confragosa* (Bolton: Fr.) J. Schröt., Buerjin County, Jiadengyu, angiosperm, *Wei* 1454a; Kanasi Nat. Res., *Salix*, *Wei* 1335, 1355 & 1366.
- Daedaleopsis tricolor* (Bull.: Mérat) Bondartsev & Singer, Buerjin County, Kanasi Nat. Res., *Betula*, *Wei* 1442.
- Dichomitus squalens* (P. Karst.) D.A. Reid, Buerjin County, Kanasi Nat. Res., *Larix*, *Wei* 1469. Fukang County, Tianshan Nat. Res., *Picea*, *Wei* 1671.
- Diplomitoporus lindbladii* (Berk.) Gilb. & Ryvardeen, Buerjin County, Kanasi Nat. Res., *Larix*, *Wei* 1398.
- Fomes fomentarius* (L.: Fr.) Fr., Buerjin County, Kanasi Nat. Res., *Betula*, *Wei* 1464; *Salix*, *Wei* 1367. Urumqi, *Malus*, *Dai* 7641.
- Fomitiporia punctata* (P. Karst.) Murrill, Fukang County, Tianshan Nat. Res., *Salix*, *Dai* 7617 & 7632. Xinyuan County, Nalati Forest Park, *Alnus*, *Wei* 1667; angiosperm, *Wei* 1635.
- Fomitopsis officinalis* (Vil.:Fr.) Bondartsev & Singer, Buerjin County, Kanasi Nat. Res., *Larix*, *Wei* 1345.
- Fomitopsis pinicola* (Sw.: Fr.) P. Karst., Buerjin County, Kanasi Nat. Res., *Betula*, *Wei* 1442; *Larix*, *Wei* 1427. Fukang County, Tianshan Nat. Res., *Elaeagnus*, *Wei* 1481a; *Picea*, *Dai* 7597. Gongliu County, Xitianshan Nat. Res., angiosperm, *Wei* 1568. Huocheng County, Guozigou Forest Park, *Larix*, *Wei* 1462a & 1473a; *Pinus*, *Wei* 1485a; *Populus*, *Wei* 1478a.
- Fomitopsis rosea* (Alb. & Schwein.: Fr.) P. Karst., Buerjin County, Kanasi Nat. Res., *Larix*, *Wei* 1439 & 1470; *Picea*, *Wei* 1489. Fukang County, Tianshan Nat. Res., *Picea*, *Dai* 7619, *Wei* 1689 & 1701.
- Funalia trogii* (Berk.) Bondartsev & Singer, Buerjin County, Kanasi Nat. Res., angiosperm, *Wei* 1462. Fukang County, Tianshan Nat. Res., angiosperm, *Wei* 1700, *Populus*, *Dai* 7595. Gongliu County, Xitianshan Nat. Res., *Malus*, *Wei* 1558. Urumqi, *Lonicerna*, *Dai* 7640. Xinyuan County, Nalati Forest Park, *Populus*, *Wei* 1620.
- Ganoderma lipsiense* (Batsch) G.F. Atk., Buerjin County, Kanasi Nat. Res., *Larix*, *Wei* 1341. Fukang County, Tianshan Nat. Res., *Populus*, *Dai* 7584, 7587 & 7634. Gongliu County, Xitianshan Nat. Res., angiosperm, *Wei* 1573; *Populus*, *Wei* 1562. Xinyuan County, Nalati Forest Park, *Populus*, *Wei* 1621.
- Gelatoporia pannocincta* (Romell) Niemelä, Buerjin County, Kanasi Nat. Res., *Betula*, *Wei* 1393; *Populus*, *Wei* 1389.
- Gelatoporia subvermisporea* (Pilát) Niemelä, Buerjin County, Kanasi Nat. Res., *Betula*, *Wei* 1420.
- Gloeophyllum abietinum* (Bull.: Fr.) P. Karst., Buerjin County, Kanasi Nat. Res., *Larix*, *Wei* 1415 & 1431.

- Gloeophyllum sepiarium* (Wulfen: Fr.) P. Karst., Buerjin County, Kanasi Nat. Res., *Larix*, Wei 1405 & 1412. Gongliu County, Xitianshan Nat. Res., *Picea*, Wei 1505. Xinyuan County, Nalati Forest Park, *Picea*, Wei 1645.
- Gloeophyllum trabeum* (Pers.: Fr.) Murrill, Gongliu County, Xitianshan Nat. Res., angiosperm, Wei 1544, 1572 & 1612; *Populus*, Wei 1542. Huocheng County, Guozigou Forest Park, *Picea*, Wei 1482a. Xinyuan County, Nalati Forest Park, *Populus*, Wei 1618.
- Gloeoporus taxicola* (Pers.: Fr.) Gilb. & Ryvarden, Buerjin County, Kanasi Nat. Res., Wei 1446.
- Heterobasidium parviporum* Niemelä & Korhonen, Buerjin County, Jiadengyu, *Larix*, Wei 1497. Fukang County, Tianshan Nat. Res., *Picea*, Dai 7594, 7596, 7614 & 7638. Gongliu County, Xitianshan Nat. Res., gymnosperm, Wei 1557; *Larix*, Wei 1523. Huocheng County, Guozigou Forest Park, *Larix*, Wei 1467a, 1468a, 1469a, 1470a, 1471a & 1515; *Picea*, Wei 1461a.
- Inocutis levis* (P. Karst.) Y.C. Dai & Niemelä, Urumqi, *Ulmus*, Dai 7600.
- Irpex lacteus* (Fr.: Fr.) Fr. *sensu lato*, Xinyuan County, Nalati Forest Park, *Picea*, Wei 1636.
- Ischnoderma benzoinum* (Wahlenb.: Fr.) P. Karst., Buerjin County, Kanasi Nat. Res., *Larix*, Wei 1473.
- Junghuhnia collabens* (Fr.) Ryvarden, Buerjin County, Kanasi Nat. Res., *Larix*, Wei 1438.
- Junghuhnia luteoalba* (P. Karst.) Ryvarden, Buerjin County, Kanasi Nat. Res., *Betula*, Wei 1379.
- Laetiporus sulphureus* (Bull.: Fr.) Murrill, Beitu, HMAS 42334.
- Lenzites acutus* Berk., Gongliu County, Xitianshan Nat. Res., *Populus*, Wei 1577. Xinyuan County, Nalati Forest Park, *Populus*, Wei 1621.
- Lenzites betulinus* (L.: Fr.) Fr., Buerjin County, Kanasi Nat. Res., *Betula*, Wei 1375.
- Oligoporus lowei* (Pilát) Gilb. & Ryvarden, Buerjin County, Kanasi Nat. Res., *Larix*, Wei 1421 & 1425.
- Oligoporus obductus* (Berk.) Gilb. & Ryvarden, Buerjin County, Jiadengyu, *Picea*, Wei 1450a & 1451a; Kanasi Nat. Res., *Larix*, Wei 1430 & 1444.
- Oligoporus rennyi* (Berk. & Broome) Donk, Buerjin County, Kanasi Nat. Res., *Larix*, Wei 1417.
- Oligoporus sericeomollis* (Romell) Bondartsev, Fukang County, Tianshan Nat. Res., *Picea*, Wei 1683 & 1705. Huocheng County, Guozigou Forest Park, *Picea*, Wei 1488a.
- Onnia tomentosa* (Fr.) P. Karst., Fukang County, Tianshan Nat. Res., ground in conifer forest, Wei 1687.
- Oxyporus corticola* (Fr.) Ryvarden, Fukang County, Tianshan Nat. Res., *Picea*, Dai 7588, 7591 & 7633. Gongliu County, Xitianshan Nat. Res., *Populus*, Wei 1605.
- Oxyporus cuneatus* (Murrill) Aoshima, Gongliu County, Xitianshan Nat. Res., angiosperm, Wei 1503.
- Oxyporus ginkgonis* Y.C. Dai, Fukang County, Tianshan Nat. Res., *Picea*, Dai 7606.
- Oxyporus obducens* (Pers.: Fr.) Donk, Gongliu County, Xitianshan Nat. Res., angiosperm, Wei 1560; *Populus*, Wei 1536 & 1553. Xinyuan County, Nalati Forest Park, *Populus*, Wei 1625.
- Oxyporus philadelphii* (Parmasto) Ryvarden, Huocheng County, Guozigou Forest Park, *Populus*, Wei 1639. Xinyuan County, Nalati Forest Park, *Populus*, Wei 1622 & 1629.



- Parmastomyces mollissimus* (Maire) Pouzar, Buerjin County, Kanasi Nat. Res., *Larix*, Wei 1343.
- Perenniporia tenuis* (Schw.) Ryvarden var. *tenuis*, Gongliu County, Xitianshan Nat. Res., angiosperm, Wei 1593. Xinyuan County, Nalati Forest Park, angiosperm, Wei 1646.
- Phaeolus schweinitzii* (Fr.: Fr.) Pat., Buerjin County, HMAS 22730.
- Phellinidium ferrugineofuscum* (P. Karst.) Fiasson & Niemelä, Buerjin County, Kanasi Nat. Res., *Larix*, Wei 1348 & 1477.
- Phellinidium sulphurascens* (Pilát) Y.C. Dai, Buerjin County, Kanasi Nat. Res., *Larix*, Wei 1337, 1413, 1432 & 1454. Fukang County, Tianshan Nat. Res., *Picea*, Dai 7613.
- Phellinus chrysoloma* (Fr.) Donk, Fukang County, Tianshan Nat. Res., *Picea*, Dai 7618, 7624 & 7627, Wei 1677 & 1685. Gongliu County, Xitianshan Nat. Res., *Picea*, Wei 1603.
- Phellinus conchatus* (Pers.: Fr.) Quél., Fukang County, Tianshan Nat. Res., angiosperm, Wei 1694; *Salix*, Dai 7623.
- Phellinus himalayensis* Y.C. Dai, Buerjin County, Kanasi Nat. Res., *Larix*, Wei 1376 & 1414. Huocheng County, Guozigou Forest Park, *Larix*, Wei 1346 & 1501.
- Phellinus igniarius* (L.: Fr.) Quél. *sensu lato*, Buerjin County, Kanasi Nat. Res., *Salix*, Wei 1334. Gongliu County, Xitianshan Nat. Res., angiosperm, Wei 1578.
- Phellinus laevigatus* (P. Karst.) Bourdot & Galzin, Gongliu County, Xitianshan Nat. Res., *Ulmus*, Wei 1604.
- Phellinus nigrolimitatus* (Romell) Bourdot & Galzin, Fukang County, Tianshan Nat. Res., *Picea*, Wei 1679 & 1698.
- Physisporinus rivulosus* (Berk. & M.A. Curtis) Ryvarden, Buerjin County, Kanasi Nat. Res., *Larix*, Wei 1353.
- Piptoporus betulinus* (Bull.: Fr.) P. Karst., Buerjin County, Kanasi Nat. Res., *Betula*, Wei 1440.
- Polyporus arcularius* Batsch: Fr., Gongliu County, Xitianshan Nat. Res., angiosperm, Wei 1582.
- Polyporus badius* (Pers.: Gray) Schwein., Gongliu County, Xitianshan Nat. Res., angiosperm, Wei 1608; *Populus*, Wei 1591. Xinyuan County, Nalati Forest Park, *Populus*, Wei 1643.
- Polyporus brumalis* Pers.: Fr., Gongliu County, Xitianshan Nat. Res., angiosperm, Wei 1554.
- Polyporus ciliatus* Fr.: Fr., Gongliu County, Xitianshan Nat. Res., angiosperm, Wei 1541 & 1601.
- Polyporus mongolicus* (Pilát) Y.C. Dai, Gongliu County, Xitianshan Nat. Res., angiosperm, Wei 1565 & 1545.
- Polyporus varius* Pers.: Fr., Buerjin County, Kanasi Nat. Res., *Populus*, Wei 1394 & 1409. Gongliu County, Xitianshan Nat. Res., angiosperm, Wei 1513 & 1535. Huocheng County, Guozigou Forest Park, angiosperm, Wei 1487a.
- Polyporus xinjiangensis* J.D. Zhao & X.Q. Zhang, Fukang County, Tianshan Nat. Res., *Populus*, Dai 7598. For a description see below.
- Postia caesia* (Schröd.: Fr.) P. Karst., Fukang County, Tianshan Nat., Res., *Picea*, Dai 7635 & 7639. Huocheng County, Guozigou Forest Park, *Picea*, Wei 1490a & 1495a.
- Postia hibernica* (Berk. & Broome) Jülich, Buerjin County, Kanasi Nat. Res., *Larix*, Wei 1423. Gongliu County, Xitianshan Nat. Res., angiosperm, Wei 1571.

- Postia leucomallella* (Murrill) Jülich, Buerjin County, Kanasi Nat. Res., *Populus*, Wei 1430a.
- Postia persinica* Niemelä & Y.C. Dai, Huocheng County, Guozigou Forest Park, gymnosperm, Wei 1456a.
- Postia placenta* (Fr.) M.J. Larsen & Lombard, Buerjin County, Kanasi Nat. Res., *Larix*, Wei 1338, 1365 & 1396.
- Postia rancida* (Bres.) M.J. Larsen & Lombard, Buerjin County, Kanasi Nat. Res., *Larix*, Wei 1429.
- Protomerulius caryae* (Schwein.) Ryvardeen, Gongliu County, Xitianshan Nat. Res., angiosperm, Wei 1606. Xinyuan County, Nalati Forest Park, *Populus*, Wei 1649.
- Pycnoporellus fulgens* (Fr.) Donk, Bokeda Mts., HMAS 16760.
- Pycnoporus cinnabarius* (Jacq.: Fr.) P. Karst., Gongliu County, Xitianshan Nat. Res., angiosperm, Wei 1561 & 1602; *Malus*, Wei 1556.
- Rigidoporus crocatus* (Pat.) Ryvardeen, Gongliu County, Xitianshan Nat. Res., *Populus*, Wei 1590, 1594, 1595 & 1596. Xinyuan County, Nalati Forest Park, *Picea*, Wei 1654.
- Skeletocutis carneogrisea* A. David, Fukang County, Tianshan Nat., Res., *Picea*, Dai 7601.
- Skeletocutis lenis* (P. Karst.) Niemelä, Gongliu County, Xitianshan Nat. Res., *Larix*, Wei 1516; *Picea*, Wei 1524.
- Skeletocutis nivea* (Jungh.) Jean Keller, Buerjin County, Kanasi Nat. Res., *Populus*, Wei 1407.
- Skeletocutis subvulgaris* Y.C. Dai, Xinyuan County, Nalati Forest Park, *Larix*, Wei 1664.
- Skeletocutis vulgaris* (Fr.) Niemelä & Y.C. Dai, Buerjin County, Kanasi Nat. Res., *Picea*, Wei 1402. Fukang County, Tianshan Nat. Res., *Picea*, Dai 7621. Gongliu County, Xitianshan Nat. Res., angiosperm, Wei 1615; gymnosperm, Wei 1660; *Picea*, Wei 1504, 1511, 1517, 1525, 1581, 1585, 1589 & 1592. Xinyuan County, Nalati Forest Park, *Larix*, Wei 1666.
- Trametes cervina* (Schwein.) Bres., Tuomuer Mts., HMAS 39462, 39463.
- Trametes gibbosa* (Pers.: Fr.) Fr., Gongliu County, Xitianshan Nat. Res., *Populus*, Wei 1533.
- Trametes hirsuta* (Wulfen: Fr.) Pilát, Gongliu County, Xitianshan Nat. Res., angiosperm, Wei 1529; *Populus*, Wei 1537; *Sorbus*, Wei 1518; *Ulmus*, Wei 1588. Huocheng County, Guozigou Forest Park, angiosperm, Wei 1459a & 1486a.
- Trametes ljubarskyi* Pilát, Xinyuan County, Nalati Forest Park, angiosperm, Wei 1653.
- Trametes ochracea* (Pers.) Gilb. & Ryvardeen, Buerjin County, Kanasi Nat. Res., *Larix*, Wei 1483. Gongliu County, Xitianshan Nat. Res., *Picea*, Wei 1528; *Populus*, Wei 1531. Huocheng County, Guozigou Forest Park, *Larix*, Wei 1465a; *Sorbus*, Wei 1483a. Xinyuan County, Nalati Forest Park, *Alnus*, Wei 1669 & 1670.
- Trametes pubescens* (Schumach.: Fr.) Pilát, Fukang County, Tianshan Nat. Res., *Picea*, Wei 1688.
- Trametes suaveolens* (Fr.: Fr.) Fr., Xinyuan County, Nalati Forest Park, *Salix*, Wei 1634.
- Trametes versicolor* (L.: Fr.) Pilát, Gongliu County, Xitianshan Nat. Res., Wei 1576. Huocheng County, Guozigou Forest Park, Wei 1480a. Xinyuan County, Nalati Forest Park, *Populus*, Wei 1661.

- Trechispora mollusca* (Pers.: Fr.) Liberta, Buerjin County, Kanasi Nat. Res., *Larix*, Wei 1347, 1384, 1390, 1416, 1481, 1482 & 1487. Fukang County, Tianshan Nat. Res., *Picea*, Dai 7630 & 7631, Wei 1676 & 1693. Huocheng County, Guozigou Forest Park, *Picea*, Wei 1484a.
- Trichaptum abietinum* (Pers.: Fr.) Ryvardeen, Buerjin County, Jiadengyu, *Picea*, Wei 1453a; Kanasi Nat. Res., *Larix*, Wei 1484. Fukang County, Tianshan Nat. Res., *Larix*, Wei 1678 & 1680; *Picea*, Dai 7610, Wei 1697. Gongliu County, Xitianshan Nat. Res., *Picea*, Wei 1508 & 1613. Xinyuan County, Nalati Forest Park, *Populus*, Wei 1623.
- Trichaptum fuscoviolaceum* (Ehrenb.: Fr.) Ryvardeen, Buerjin County, Kanasi Nat. Res., *Larix*, Wei 1377.
- Trichaptum pargamenum* (Fr.) G. Cunn., Buerjin County, Kanasi Nat. Res., *Betula*, Wei 1380. Xinyuan County, Nalati Forest Park, *Populus*, Wei 1651 & 1655.
- Tyromyces chioneus* (Fr.) P. Karst., Buerjin County, Kanasi Nat. Res., *Betula*, Wei 1422.

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