

merit, 3–5 μm , diam, thin walled, hyaline, regularly septate, lacking clamps, remaining intact in 2% KOH. Subhymenium a densely compact tissue; hyphae tightly interwoven, frequently septate, thin-walled, hyaline, lacking clamps, giving rise to the hymenium elements.

Hymenium of basidia. Basidia pyriform, 15 \times 7.5 μm , hyaline, thin walled, 4-sterigmate, lacking a basal clamp. Basidiospores broadly ovoid, 6.5–8.0 \times 4.0–5.0 μm , hyaline, thin-walled, smooth, negative in Melzer's reagent.

Habitat: *Laetiporus conifericola* occurs on mature and over mature living and dead conifers in western North America from California to Alaska.

Etymology: from conifer, the only type of substrate on which this species occurs.

Representative specimens examined:
CANADA. British Columbia: Vancouver, Cypress Bowl, 18 August 1994, on dead standing *Abies grandis* (Douglas) Lindl., *H. H. Burdsall, Jr. 15411* (CFMR). **UNITED STATES. Alaska:** Municipality of Anchorage, Girdwood, 20 August 1999, on *Tsuga* sp., *J. Tinius AK-2* (CFMR); Kenai Peninsula, Gold Fin Lake Trail, on *Tsuga* sp., 24 August 1999, *J. Tinius AK-3* (CFMR); Kenai Peninsula, Homer, Beaver Flats, Olson Mt. Road, on dead *Picea* sp., 21 August 1997, *G. Lyon, HHB 17223* (CFMR); Kenai Peninsula, South end Kenai Lake, Primrose Creek Trailhead, on *P. \times luzii* Little stump, 20 August 1998, *Harold H. Burdsall, Jr. 17601* (CFMR); Ketchikan, on *Tsuga heterophylla* (Raf.) Sarg., 25 July 1998, *J.A.Micales 001* (CFMR); Kenai Peninsula, 10 miles North of Seward on Seward Highway, Gill Fin Trail, on 36" diameter log of *Picea sitchensis* (Bong.) Carrière, 2 October 1999, *H. H. Burdsall, Jr. 17919* (CFMR); Girdwood, Alyeska Ski Resort, on *Picea* sp., 24 August 1996, *P. Kempton 7022 AK-1* (CFMR). **California:** Mendocino County, Jackson State Forest, 24 November 1996, on dead redwood, *D. Rizo CA-8* (CFMR); El Dorado County, Lake Tahoe Basin, on dead *Abies magnifica* A. Murr., 14 September 1998, *D. Rizzo CA-18* (CFMR). **Nevada:** Washoe County, Mt. Rose, Tahoe Rim Trailhead, on living *Pinus contorta* Douglas, 30 September 1998, *H. H. Burdsall, Jr., NV-2* (CFMR). **Idaho:** Halfway House, on *Pinus murrayana* Balf. in Murray, 18 August 1911, *G. G. Hedgcock and J. R. Weir FP 11030* (CFMR); Valley County, Payette National Forest, no substrate, 22 August 1969, *H. M. Shank OKM 8051* (CFMR). **Oregon:** Benton County, Mary's Peak, on *Abies* sp., 8 November 1971, *M. J. Larsen FP 133022*

(CFMR); Lincoln County, near Drift Creek Campground, FS Road 1980, 6 November 1995, on *Picea* sp. or *Tsuga* sp., *J. Roger OR-1* (CFMR). **Washington:** Jefferson County, Olympic National Park, on *T. heterophylla*, 12 October 1998, *T. J. Volk TJV-93-155*(CFMR); Olympic National Park, on *Picea* sp. log, 13 October 1993, *T. J. Volk TJV-93-162*(CFMR); Skyhomish, on *Tsuga* sp., 27 August 1910, *C. J. Humphrey FP 6273* (CFMR).

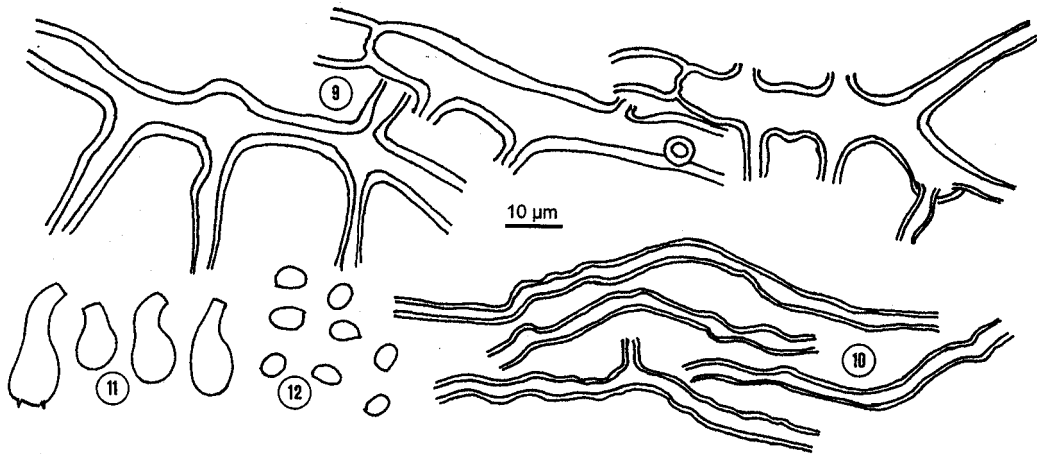
Remarks: in western North America *Laetiporus conifericola* is distinguished from the other *Laetiporus* species by occurring on conifers. The only other species of *Laetiporus* in the West is *L. gilbertsonii*, which is found only on hardwoods, mainly *Quercus* and *Eucalyptus* spp. *Laetiporus conifericola* is similar to *L. huroniensis*, which occurs in the Lake States and further east in the northern United States and southern Canada. They differ in basidiospore size and shape and in being about 85% incompatible in incompatibility confrontations as indicated by the isozyme data of the resultant crosses. Morphological interactions of all confrontations in culture plates appear the same as negative readings in other species.

Laetiporus gilbertsonii Burds., *sp. nov.* TYPE: UNITED STATES. California: San Francisco County, San Francisco, Golden Gate Park, North Pond near 43rd Street, on living *Eucalyptus* sp., 26 September 1997, *K. P. Collins, CA-16* (Holotype: CFMR!). Figs. 9–12.

Species haec a Laetiporo sulphureo basidiomate aurantiaco, pagina poris citrino et basidiosporis 5.0-6.5 \times 3.5-4.5 μm differt. Habitat in partibus USA occidentali maritimi.

Basidiomes shelving, dimidiate, up to 20 cm wide, 15 cm deep and 3 cm thick, laterally stipitate, sessile or with broad stipe attachment, upper surface of pileus and stipe pale salmon orange or pale pinkish orange to tan or light brown in age, sometimes nearly white; context pale yellow to nearly white, up to 2 cm thick, sometimes thicker at the attachment to the substrate; pore surface lemon-yellow to pale lemon-yellow (in the western United States) to isabelline or nearly white (in the southeastern United States); pores 1–5 mm long, 2–4 per mm, nearly circular at first, becoming more angular in age, decurrent on stipe to its attachment.

Pileus surface a tissue of compactly interwoven hyphae 36–50 μm thick. Hyphae up to 5 μm diam, but mostly collapsed, walls up to 1 μm , hyaline, smooth, septate, lacking clamp



FIGURES 9–12. *Laetiporus gilbertsonii*. 9, context of pileus; 10, hyphae of pore trama; 11, basidia; 12, basidiospores. From CA-16, holotype (CFMR). Bar = 10µm.

connections, grading rather abruptly into pileus context. Pileus context dimitic, composed of binding and generative hyphae. Binding hyphae 4–15 µm diam, hyaline, densely branched and intertwined or composed of occasionally septate cylindrical main hyphae with dendroid narrowing branches, lacking clamp connections, walls 1–3 µm thick, dissolving nearly completely in 2% KOH. Generative hyphae 6–10 µm diam, hyaline, thin-walled, smooth, frequently branched and septate, lacking clamp connections. Pore trama dimitic, composed of skeletal and generative hyphae with more parallel organization than context; skeletal hyphae, 4–6 µm diam, nearly parallel but somewhat sinuous and undulating, occasionally septate, lacking clamp connections, walls 1–1.5 µm thick, dissolving nearly completely in 2% KOH. Generative hyphae nearly parallel in arrangement, 3–5 µm diam, thin-walled, hyaline, regularly septate, lacking clamps, remaining intact in 2% KOH. Subhymenium a densely compact tissue; hyphae tightly interwoven, frequently septate, thin-walled, hyaline, lacking clamps, giving rise to the hymenium elements.

Hymenium of basidia. Basidia pyriform, 15 × 7.5 µm, hyaline, thin-walled, 4-sterigmate, lacking a basal clamp. Basidiospores broadly ovoid, 5.0–6.5 × 3.5–4.5 µm, hyaline, thin walled, smooth, negative in Melzer's reagent.

Habitat: *Laetiporus gilbertsonii* is associated with a brown rot of *Quercus spp.* and *Eucalyptus spp.*, occurring on living trees or dead trunks and logs. It is reported from the states adjacent to the Mexican border, and north

along the Pacific coast of the United States into the state of Washington.

Etymology: in honor of Dr. Robert L. Gilbertson, mycological taxonomist and specialist in the Aphyllophorales, teacher and mentor to young mycologists, and valued colleague of mycologists throughout the world.

Representative specimens examined: UNITED STATES. **California:** Santa Cruz County, Santa Cruz, all on *Eucalyptus* stumps, 1 November 1995, *N. Andresen CA-5, CA-6, CA-7* (CFMR); Napa County, St Helena, on living *Quercus* sp., no date, *D. Rizzo CA-13* (CFMR); Contra Costa County, Lafayette, on *Prunus* sp., 13 September 1997, *K. P. Collins CA-15* (CFMR); Marin County, San Rafael, Dominican College, on *Eucalyptus* sp., no date, *K. P. Collins CA-17* (CFMR); Yosemite National Park, Curry Village, on dead *Q. kelloggii* Newb., 25 September 1998, *CA-19* (CFMR). **Oregon:** Klamath County, W. of Grants Pass, on *Quercus garryana* Douglas, 24 October 1909, *G. G. Hedgcock FP1704* (CFMR). **Washington:** on *Prunus* sp., October 1998, *W. Litke WAS-1* (CFMR).

Remarks: during the study of this species the possibility that it was *Laetiporus discolor* (Klotzsch) Corner was entertained. *Laetiporus discolor* was described from Maritimus and is reported from several tropical locations. Thus, there was a possibility that the nearly subtropical distribution in the southern United States was a northern extreme for the species. Comparing descriptions and several specimens from tropical Africa (the type was not available) convinced us that this was not the case.