**Table S1.** Other comparative materials

|  |
| --- |
| *Microphysogobio alticorpus*: Holotype, USNM 192926, 63.0 mm SL, small stream and roadside ditch near Chia-I-Hsien (Chia-yi), western coastal plain of Taiwan Agriculture area, Mar. 1961, R. Kunts and W. Wells. Paratypes, USNM 202592, 66 specimens, 36.0-60.7 mm SL, collected with holotype; NTOUP 2007-12-198, 2 specimens, 41.5-49.8 mm SL, Kaoping River, Ligang Township, Pingtung County, Taiwan. NTOUP 2007-12-199, 2 specimens, 36.7-39.6 mm SL, Zhuoshui River, Xiluo Township, Yunlin County, Taiwan. NTOUP 2009-10-112, 1 specimen, 44.2 mm SL, Kaoping River, Shanlin District, Kaohsiung City, Taiwan. NTOUP 2010-05-305, 1 specimen, 36.2 mm SL, Wu River, Caotun Township, Changhua County, Taiwan. NTOUP 2010-11-542, 3 specimens, 37.1-55.0 mm SL, Bazhang River, Fanlu Township, Chiayi County, Taiwan. NTOUP 2010-11-543, 5 specimens, 33.4-58.1 mm SL, Zhuoshui River, Jiji Township, Nantou County, Taiwan.  *Microphysogobio brevirostris*: Lectotype, BMNH 1865.5.2.49, Formosa, from Consul Swinhoe’s collection. Paralectotypes, BMNH 1865.5.2.50-53, 4 specimens; ZMB 6305, 1 specimen; ASIZP 0066723, 2 specimens, 70-73mmSL, Tamsui River, Pinglin District, New Taipei City, Taiwan; NTOUP 2006-09-724, 3 specimens, 35.6-53.3 mm SL, Keelung River, Tamsui River, Sijiaoting, Keelung City, Taiwan, 5 September 2006. NTOUP 200710-007, 1 specimen, 59.2 mm SL, Dahan River, Tamsui River, Daxi District, Taoyuan City, Taiwan. NTOUP 2010-05-258, 1 specimen, 62.7 mm SL, Keelung River, Tamsui River, Sijiaoting, Keelung City, Taiwan. NTOUP 2010-10-518, 1 specimen, 59.7 mm SL, Keelung River, Tamsui River, Yourui, Keelung City, Taiwan. NTOUP 2010-10-530, 3 specimens, 42.7-48.0 mm SL, Keelung River, Tamsui River, Ruifang District, New Taipei City, Taiwan. NTOUP 2010-11-539, 2 specimens, 66.7-68.9 mm SL, Keelung River, Tamsui River, Ruifang District, New Taipei City, Taiwan. NTOUP 2010-11-540, 1 specimen, 75.7 mm SL, Keelung River, Tamsui River, Nuannuan, Keelung City, Taiwan. NTOUP 2010-11-541, 1 specimen, 62.2 mm SL, Shuangxi River, Gongliao District, New Taipei City, Taiwan.  *Microphysogobio chenhsienensis*: NTOUP 2010-11-550, 6 specimens, 50.7-52.5 mm SL, Ou River, Yantou Township, Youngjia County, Zhejiang Province, China. NTOUP 2010-11-551, 8 specimens, 53.3-65.9 mm SL, Ou River, Wenzhou City, Zhejiang Province, China.  *Microphysogobio elongatus*: ASIZP 0078399, 6 specimens, 69.0-77.3 mm SL, Quanzhou County market, Guangxi Province, China.  *Microphysogobio exilicauda*: NTOUP 2010-11-552, 54.3 mm SL, Gangjiang River, a tributary of the Yangtze River, Ningdu County, Jiangxi Province, China; NTOUP 2010-11-553, 4 specimens, 54.9-58.3 mm SL, Gangjiang River, a tributary of the Yangtze River, Hongjiang Township, Yichun City, Jiangxi Province, China; NTOUP 2010-11-554, 3 specimens, 49.1-53.7 mm SL, Shinjiang River, a tributary of the Yangtze River, Zixi County, Jiangxi Province, China.  *Microphysogobio fukiensis*: NTOUP 2010-11-535, 1 specimen, 73.0 mm SL, Shaowu City market, Fujian Province, China. NTOUP 2010-11-536, 1 specimen, 55.5 mm SL, Xinquan market, Fujian Province, China, 25 June 2006. NTOUP 2010-11-537, 2 specimens, 43.8-61.6 mm SL, Datian County market, Fujian Province, China. NTOUP 2010-11-538, 3 specimens, 43.4-51.2 mm SL, Shaowu City market, Fujian Province, China. NMNSF 01803, 23 specimens, 68.9-77.9 mm SL, Min River, Minhou County, Fujian Province, China. NTOUP 2015-10-001, 8 specimens, 59.0-71.5 mm SL, Pinghe County market, Fujian Province, China.  *Microphysogobio hsinglungshanensis*: ASIZB 73367, 1 specimen, 57.1 mm SL. ASIZB 73372, 1 specimen, 55.8 mm SL. ASIZB 73374, 1 specimen, 56.3 mm SL. ASIZB 73377, 1 specimen, 62.6 mm SL. All specimens were collected form Huairou District, Beijing City, China.  *Microphysogobio kachekensis*: NTOUP 2010-11-544, 2 specimens, 63.7-66.9 mm SL, Nandu River, Nankai Township, Hainan Province, China; NTOUP 2013-10-117, 5 specimens, 50.3-74.9 mm SL, Nandu River, Hainan Province, China. AMNH 8372, holotype of *Pseudogobio labeoides*, Nodoa, Hainan Island, China.  *Microphysogobio kiatingensis*: ASIZB 44902, 1 specimen, 73.9 mm SL. ASIZB 44904, 1 specimen, 77.3 mm SL. ASIZB 44905, 1 specimen, 72.9 mm SL. ASIZB 44906, 1 specimen, 74.8 mm SL. All specimens were collected from Sichuan Province, China.  *Microphysogobio microstomus*: NTOUP 2010-11-546, 1 specimen, 43.7 mm SL, Taihu lake, Lujiaxiang, Dongshan Township, Suzhou City, Jiangsu Province, China.  *Microphysogobio anudarini*: Data from Kottelat (2006).  *Microphysogobio pseudoelongatus*: Holotype, ASIZB 70974, 81.5 mm SL, Fangcheng River, Dali Town, Fangcheng District, Guangxi Province, China; Paratype, ASIZB 70975, 86.5 mm SL. ASIZB 70976, 71.0 mm SL, remaining data same as holotype.  *Microphysogobio tafangensis*: NMNSF 01653, 1 specimen, 62.0 mm SL, Changhua Township market, Lin'an City, Zhejiang Province, China.  *Microphysogobio tungtingensis*: ASIZB 185760, 1 specimen, 64.0 mm SL. ASIZB 185761, 1 specimen, 65.4 mm SL. ASIZB 185762, 1 specimen, 61.5 mm SL. ASIZB 185766, 1 specimen, 56.9 mm SL. All specimens were collected from the Yuanjiang basin, a tributary of the Yangtze River, Taoyuan City, Hunan Province, China.  *Microphysogobio xianyouensis*: Holotype, NTOUP 2010-11-533, 61.3 mm SL, Mulan River, Daji, Xianyou, Fujian Province, China; Paratypes, NTOUP 2010-11-534, 8 specimens, 53.4-60.7 mm SL. Paratypes, ASIZP 0078398, 2 specimens, 56.1-59.5 mm SL, collected with holotype.  *Microphysogobio yunnanensis*: NTOUP 2013-10-118, 8 specimens, 37.8-47.9 mm SL, Lixian River, a tributary of the Red River, Dien Bien Province, Vietnam. |