

TABLE S1: Specimens used for the phylogenetic analyses.

| * Voucher # | Species           | mtDNA Clade | Mountain region | Location        | Elevation (m a.s.l.) | Longitude   | Latitude     | GenBank # COI | GenBank # LwRh | Collection date | Collectors                 |
|-------------|-------------------|-------------|-----------------|-----------------|----------------------|-------------|--------------|---------------|----------------|-----------------|----------------------------|
| 1 TN001     | <i>M. kotokui</i> | L3          | Chuo-Alps       | Nishikomagatake | 1300                 | -           | -            | AB738420      | in prep        | 2009.08.04      | T. Nozawa and T. Matsuzuki |
| 2 TN002     | <i>M. kotokui</i> | L2          | Chuo-Alps       | Nishikomagatake | 1300                 | -           | -            | AB738421      | in prep        | 2009.08.04      | T. Nozawa and T. Matsuzuki |
| 3 TN003     | <i>M. kotokui</i> | L2          | Chuo-Alps       | Nishikomagatake | 1300                 | -           | -            | AB738422      | in prep        | 2009.08.04      | T. Nozawa and T. Matsuzuki |
| 4 TN004     | <i>M. kotokui</i> | L2          | Chuo-Alps       | Nishikomagatake | 1300                 | -           | -            | AB738423      | in prep        | 2009.08.04      | T. Nozawa and T. Matsuzuki |
| 5 TN005     | <i>M. kotokui</i> | L1          | Yatsugatake     | Haramura        | 1260                 | -           | -            | AB738424      | in prep        | 2009.08.14      | T. Nozawa and T. Matsuzuki |
| 6 TN006     | <i>M. kotokui</i> | L3          | Yatsugatake     | Haramura        | 1260                 | -           | -            | AB738425      | in prep        | 2009.08.14      | T. Nozawa and T. Matsuzuki |
| 7 TN007     | <i>M. kotokui</i> | L1          | Yatsugatake     | Sanjiro         | 1457                 | 36°12'37.4" | 138°06'20.5" | AB738426      | in prep        | 2009.09.13      | T. Nozawa and T. Matsuzuki |
| 8 TN008     | <i>M. kotokui</i> | L3          | Yatsugatake     | Sanjiro         | 1464                 | 36°12'37.8" | 138°06'19.5" | AB738427      | in prep        | 2009.09.13      | T. Nozawa and T. Matsuzuki |
| 9 TN009     | <i>M. kotokui</i> | L3          | Yatsugatake     | Tatenoumi       | 1395                 | 36°04'55.3" | 138°08'25.4" | AB738428      | in prep        | 2009.08.04      | T. Nozawa and T. Matsuzuki |
| 10 TN010    | <i>M. kotokui</i> | L4          | Yatsugatake     | Tatenoumi       | 1394                 | 36°04'55.1" | 138°08'25.1" | AB738429      | in prep        | 2009.08.04      | T. Nozawa and T. Matsuzuki |
| 11 TN011    | <i>M. kotokui</i> | L3          | Kita-Alps       | Kamikouchi      | 1512                 | 36°14'23.7" | 137°37'03.2" | AB738430      | in prep        | 2009.08.26      | T. Nozawa and T. Matsuzuki |
| 12 TN012    | <i>M. kotokui</i> | L3          | Kita-Alps       | Kamikouchi      | 1535                 | 36°15'12.2" | 137°40'04.8" | AB738431      | in prep        | 2009.08.26      | T. Nozawa and T. Matsuzuki |
| 13 TN014    | <i>M. kotokui</i> | L3          | Joshinetsu      | Sugadaira       | 1310                 | 36°31'08.0" | 138°21'18.3" | AB738432      | in prep        | 2009.09.16      | T. Nozawa and T. Matsuzuki |
| 14 TN015    | <i>M. kotokui</i> | L1          | Kita-Alps       | Norikura        | 1562                 | 36°07'08.0" | 137°36'52.6" | AB738433      | in prep        | 2009.09.22      | T. Nozawa and T. Matsuzuki |
| 15 TN016    | <i>M. kotokui</i> | L3          | Kita-Alps       | Norikura        | 1576                 | 36°07'07.4" | 137°36'51.6" | AB738434      | in prep        | 2009.09.22      | T. Nozawa and T. Matsuzuki |
| 16 TN017    | <i>M. kotokui</i> | L2          | Hijiri          | Hijirikogen     | 1000                 | -           | -            | AB738435      | in prep        | 2009.09.22      | T. Nozawa and T. Matsuzuki |
| 17 TN019    | <i>M. kotokui</i> | L1          | Chuo-Alps       | Kisokomakogen   | 1105                 | 35°50'02.7" | 137°45'40.5" | AB738436      | in prep        | 2009.09.06      | T. Nozawa and T. Matsuzuki |
| 18 TN020    | <i>M. kotokui</i> | L3          | Chuo-Alps       | Ohtairakaido    | 1205                 | 35°33'26.8" | 137°41'06.3" | AB738437      | in prep        | 2009.09.06      | T. Nozawa and T. Matsuzuki |
| 19 TN021    | <i>M. kotokui</i> | L1          | Joshinetsu      | Yamada          | 1501                 | 36°40'09.2" | 138°27'30.5" | AB738438      | in prep        | 2009.10.11      | T. Nozawa and T. Matsuzuki |
| 20 TN022    | <i>M. kotokui</i> | L1          | Joshinetsu      | Yamada          | 1499                 | 36°40'08.9" | 138°27'29.5" | AB738439      | in prep        | 2009.10.11      | T. Nozawa and T. Matsuzuki |
| 21 TN023    | <i>M. kotokui</i> | L1          | Joshinetsu      | Yamada          | 1499                 | 36°40'08.9" | 138°27'29.5" | AB738440      | in prep        | 2009.10.11      | T. Nozawa and T. Matsuzuki |
| 22 TN024    | <i>M. kotokui</i> | L1          | Minami-Alps     | Kayanokogen     | 1208                 | 35°53'43.4" | 138°01'40.0" | AB738441      | in prep        | 2009.10.16      | T. Nozawa and T. Matsuzuki |
| 23 TN025    | <i>M. kotokui</i> | L3          | Kita-Alps       | Norikura        | 1455                 | 36°07'20.8" | 137°37'41.9" | AB738442      | in prep        | 2009.07.23      | T. Nozawa and T. Matsuzuki |
| 24 TN026    | <i>M. kotokui</i> | L3          | Kita-Alps       | Norikura        | 1473                 | 36°07'20.9" | 137°37'42.2" | AB738443      | in prep        | 2009.07.23      | T. Nozawa and T. Matsuzuki |
| 25 TN027    | <i>M. kotokui</i> | L3          | Kita-Alps       | Norikura        | 1478                 | 36°07'20.5" | 137°37'41.8" | AB738444      | in prep        | 2009.07.23      | T. Nozawa and T. Matsuzuki |
| 26 TN030    | <i>M. kotokui</i> | L1          | Kita-Alps       | Nagawa          | 1152                 | 36°07'20.9" | 137°37'42.2" | AB738445      | in prep        | 2009.07.24      | T. Nozawa and T. Matsuzuki |
| 27 TN031    | <i>M. kotokui</i> | L1          | Kita-Alps       | Nagawa          | 1159                 | 36°05'27.6" | 137°41'26.5" | AB738446      | in prep        | 2009.07.24      | T. Nozawa and T. Matsuzuki |
| 28 TN032    | <i>M. kotokui</i> | L3          | Kita-Alps       | Sakaitouge      | 1418                 | 36°02'05.6" | 137°42'37.1" | AB738447      | in prep        | 2009.07.24      | T. Nozawa and T. Matsuzuki |
| 29 TN033    | <i>M. kotokui</i> | L3          | Kita-Alps       | Sakaitouge      | 1408                 | 36°02'06.0" | 137°42'37.8" | AB738448      | in prep        | 2009.07.24      | T. Nozawa and T. Matsuzuki |
| 30 TN034    | <i>M. kotokui</i> | L3          | Yatsugatake     | Tateshinakogen  | 1371                 | 36°03'14.0" | 138°16'14.1" | AB738449      | in prep        | 2009.08.04      | T. Nozawa and T. Matsuzuki |
| 31 TN035    | <i>M. kotokui</i> | L4          | Yatsugatake     | Tateshinakogen  | 1371                 | 36°03'14.0" | 138°16'14.1" | AB738450      | in prep        | 2009.08.04      | T. Nozawa and T. Matsuzuki |
| 32 TN036    | <i>M. kotokui</i> | L1          | Yatsugatake     | Haramura        | 1260                 | -           | -            | AB738451      | in prep        | 2009.08.14      | T. Nozawa and T. Matsuzuki |
| 33 TN037    | <i>M. kotokui</i> | L3          | Kita-Alps       | Nomugitouge     | 1278                 | 36°02'28.2" | 137°38'17.3" | AB738452      | in prep        | 2009.08.31      | T. Nozawa and T. Matsuzuki |
| 34 TN038    | <i>M. kotokui</i> | L3          | Kita-Alps       | Nakabusa        | 1187                 | 36°22'27.6" | 137°45'29.1" | AB738453      | in prep        | 2009.09.01      | T. Nozawa and T. Matsuzuki |
| 35 TN039    | <i>M. kotokui</i> | L3          | Kita-Alps       | Nakabusa        | 1216                 | 36°22'27.3" | 137°45'30.6" | AB738454      | in prep        | 2009.09.01      | T. Nozawa and T. Matsuzuki |
| 36 TN040    | <i>M. kotokui</i> | L2          | Minami-Alps     | Nakasawatouge   | 1071                 | 35°42'37.3" | 138°03'53.3" | AB738455      | in prep        | 2009.09.04      | T. Nozawa and T. Matsuzuki |
| 37 TN041    | <i>M. kotokui</i> | L2          | Kita-Alps       | Mizukisawa      | 1216                 | 35°59'32.7" | 137°44'01.6" | AB738456      | in prep        | 2009.08.28      | T. Nozawa and T. Matsuzuki |
| 38 TN042    | <i>M. kotokui</i> | L1          | Kita-Alps       | Mizukisawa      | 1192                 | 35°59'33.3" | 137°44'02.1" | AB738457      | in prep        | 2009.08.28      | T. Nozawa and T. Matsuzuki |
| 39 TN043    | <i>M. kotokui</i> | L2          | Joshinetsu      | Minenohara      | 1241                 | 36°33'00.8" | 138°20'02.9" | AB738458      | in prep        | 2009.09.03      | T. Nozawa and T. Matsuzuki |
| 40 TN044    | <i>M. kotokui</i> | L3          | Joshinetsu      | Minenohara      | 1231                 | 36°33'00.8" | 138°20'02.8" | AB738459      | in prep        | 2009.09.03      | T. Nozawa and T. Matsuzuki |
| 41 TN045    | <i>M. kotokui</i> | L3          | Joshinetsu      | Sugadaira       | 1119                 | 36°29'49.5" | 138°21'10.3" | AB738460      | in prep        | 2009.09.03      | T. Nozawa and T. Matsuzuki |
| 42 TN046    | <i>M. kotokui</i> | L3          | Joshinetsu      | Shikasawa       | 1433                 | 36°27'07.1" | 138°25'40.2" | AB738461      | in prep        | 2009.09.03      | T. Nozawa and T. Matsuzuki |
| 43 TN047    | <i>M. kotokui</i> | L3          | Minami-Alps     | Kurokawa        | 1686                 | 35°37'50.1" | 138°05'36.7" | AB738462      | in prep        | 2009.10.16      | T. Nozawa and T. Matsuzuki |
| 44 TN048    | <i>M. kotokui</i> | L3          | Minami-Alps     | Kurokawa        | 1725                 | 35°37'49.4" | 138°05'36.7" | AB738463      | in prep        | 2009.10.16      | T. Nozawa and T. Matsuzuki |
| 45 TN049    | <i>M. kotokui</i> | L3          | Kita-Alps       | Kamikouchi      | 1580                 | 36°15'46.1" | 137°41'47.8" | AB738464      | in prep        | 2009.08.26      | T. Nozawa and T. Matsuzuki |

|    |             |                         |       |             |                       |      |             |              |          |          |            |                                   |
|----|-------------|-------------------------|-------|-------------|-----------------------|------|-------------|--------------|----------|----------|------------|-----------------------------------|
| 46 | TN050       | <i>M. kotokui</i>       | L3    | Kita-Alps   | Kamikouchi            | 1580 | 36°15'53.4" | 137°41'29.8" | AB738465 | in prep  | 2009.08.26 | T. Nozawa and T. Matsuzuki        |
| 47 | TN051       | <i>M. kotokui</i>       | L3    | Kita-Alps   | Kamikouchi            | 1578 | 36°15'53.5" | 137°41'30.5" | AB738466 | in prep  | 2009.08.26 | T. Nozawa and T. Matsuzuki        |
| 48 | TN052       | <i>M. kotokui</i>       | L3    | Kita-Alps   | Kamikouchi            | 1588 | 36°15'46.1" | 137°41'47.8" | AB738467 | in prep  | 2009.08.26 | T. Nozawa and T. Matsuzuki        |
| 49 | TN053       | <i>M. kotokui</i>       | L1    | Yatsugatake | Utsukushigahara       | 1398 | 36°15'01.2" | 138°02'21.6" | AB738468 | in prep  | 2009.08.30 | T. Nozawa and T. Matsuzuki        |
| 50 | TN054       | <i>M. kotokui</i>       | L1    | Yatsugatake | Utsukushigahara       | 1398 | 36°15'01.2" | 138°02'21.6" | AB738469 | in prep  | 2009.08.30 | T. Nozawa and T. Matsuzuki        |
| 51 | TN055       | <i>M. kotokui</i>       | L2    | Kita-Alps   | Oshirogawa            | 940  | 36°08'21.8" | 137°44'16.2" | AB738470 | in prep  | 2009.08.31 | T. Nozawa and T. Matsuzuki        |
| 52 | TN056       | <i>M. kotokui</i>       | L1    | Minami-Alps | kayanokogen           | 1157 | 35°53'55.5" | 138°01'35.2" | AB738471 | in prep  | 2009.09.04 | T. Nozawa and T. Matsuzuki        |
| 53 | TN057       | <i>M. kotokui</i>       | L3    | Kita-Alps   | Abotouge              | 1654 | 36°12'01.0" | 137°35'59.8" | AB738472 | in prep  | 2009.06.28 | T. Nozawa and T. Matsuzuki        |
| 54 | TN058       | <i>M. kotokui</i>       | L3    | Kita-Alps   | Abotouge              | 1663 | 36°12'00.4" | 137°35'59.0" | AB738473 | -        | 2009.06.28 | T. Nozawa and T. Matsuzuki        |
| 55 | TN059       | <i>M. kotokui</i>       | L3    | Kita-Alps   | Abotouge              | 1674 | 36°12'00.6" | 137°35'58.6" | AB738474 | in prep  | 2009.06.28 | T. Nozawa and T. Matsuzuki        |
| 56 | TN062       | <i>M. kotokui</i>       | L3    | Joshinetsu  | Sugadaira             | 1310 | 36°31'08.0" | 138°21'18.3" | AB738475 | in prep  | 2009.09.16 | T. Nozawa and T. Matsuzuki        |
| 57 | TN063       | <i>M. kotokui</i>       | L3    | Kita-Alps   | Kamikouchi            | 1594 | 36°16'43.1" | 137°41'34.6" | AB738476 | in prep  | 2009.09.26 | T. Nozawa and T. Matsuzuki        |
| 58 | TN064       | <i>M. kotokui</i>       | L3    | Kita-Alps   | Kamikouchi            | 1598 | 36°16'46.0" | 137°41'33.9" | AB738477 | in prep  | 2009.09.26 | T. Nozawa and T. Matsuzuki        |
| 59 | TN073       | <i>M. kotokui</i>       | L3    | Joshinetsu  | Sugadaira             | 1350 | 36°30'56.8" | 138°21'24.5" | AB738478 | in prep  | 2009.09.16 | T. Nozawa and T. Matsuzuki        |
| 60 | TN081       | <i>M. kotokui</i>       | L2    | Kita-Alps   | Misato                | 1236 | 36°16'51.8" | 137°49'31.5" | AB738479 | in prep  | 2009.07.23 | T. Nozawa and T. Matsuzuki        |
| 61 | TN082       | <i>M. kotokui</i>       | L2    | Kita-Alps   | Misato                | 1225 | 36°16'55.9" | 137°49'34.3" | AB738480 | in prep  | 2009.07.23 | T. Nozawa and T. Matsuzuki        |
| 62 | TN084       | <i>M. kotokui</i>       | L1    | Hijiri      | Hijirikogen           | 1000 | -           | -            | AB738481 | in prep  | 2009.08.22 | T. Nozawa and T. Matsuzuki        |
| 63 | TN086       | <i>M. kotokui</i>       | L1    | Kita-Alps   | Mizukisawa            | 1247 | -           | -            | AB738482 | in prep  | 2009.08.28 | T. Nozawa and T. Matsuzuki        |
| 64 | TN087       | <i>M. kotokui</i>       | L1    | Chuo-Alps   | komaganekogen         | 1071 | 35°43'47.2" | 137°53'04.6" | AB738483 | in prep  | 2009.09.04 | T. Nozawa and T. Matsuzuki        |
| 65 | TN088       | <i>M. kotokui</i>       | L3    | Myoko       | Togakushikogen        | -    | -           | -            | AB738484 | in prep  | 2009.09.07 | T. Nozawa and T. Matsuzuki        |
| 66 | TN090       | <i>M. kotokui</i>       | L3    | Kita-Alps   | Kamikouchi            | 1615 | 36°15'47.7" | 137°41'52.8" | AB738485 | in prep  | 2009.08.26 | T. Nozawa and T. Matsuzuki        |
| 67 | TN091       | <i>M. kotokui</i>       | L1    | Yatsugatake | Takeshitouge          | 1565 | 36°15'40.0" | 138°05'41.5" | AB738486 | in prep  | 2009.08.30 | T. Nozawa and T. Matsuzuki        |
| 68 | TN092       | <i>M. kotokui</i>       | L3    | Minami-Alps | Kurokawa              | 1507 | 35°38'07.6" | 138°04'41.4" | AB738487 | in prep  | 2009.09.10 | T. Nozawa and T. Matsuzuki        |
| 69 | TN093       | <i>M. kotokui</i>       | L3    | Minami-Alps | Kareikogen            | 1768 | 35°47'56.9" | 138°07'21.2" | AB738488 | in prep  | 2009.09.10 | T. Nozawa and T. Matsuzuki        |
| 70 | TN094       | <i>M. kotokui</i>       | L3    | Minami-Alps | Kareikogen            | 1767 | 35°47'56.4" | 138°07'21.1" | AB738489 | in prep  | 2009.09.10 | T. Nozawa and T. Matsuzuki        |
| 71 | TN095       | <i>M. kotokui</i>       | L1    | Minami-Alps | Jizotouge             | 1407 | 35°28'20.9" | 138°00'44.4" | AB738490 | in prep  | 2009.09.10 | T. Nozawa and T. Matsuzuki        |
| 72 | TN097       | <i>M. kotokui</i>       | L1    | Hijiri      | Hijirikogen           | 1000 | -           | -            | AB738491 | in prep  | 2009.08.22 | T. Nozawa and T. Matsuzuki        |
| 73 | 236RqBLvi   | <i>M. rubra</i>         | L1    | -           | Vitosha, Bulgaria     | -    | -           | -            | JF778877 | -        | -          | Leppänen et al. (2011)            |
| 74 | 3279RqBEbr  | <i>M. rubra</i>         | L1    | -           | Bryssel, Belgium      | -    | -           | -            | JF779012 | -        | -          | Leppänen et al. (2011)            |
| 75 | 3270RqBEbr  | <i>M. rubra</i>         | L1    | -           | Bryssel, Belgium      | -    | -           | -            | JF779004 | -        | -          | Leppänen et al. (2011)            |
| 76 | 2824RwUAKi  | <i>M. rubra</i>         | L1    | -           | Kiev, Ukraine         | -    | -           | -            | JF778894 | -        | -          | Leppänen et al. (2011)            |
| 77 | 2827RwUARwi | <i>M. rubra</i>         | L1    | -           | Rivne, Ukraine        | -    | -           | -            | JF778895 | -        | -          | Leppänen et al. (2011)            |
| 78 | 3049RqRUac  | <i>M. rubra</i>         | L1    | -           | Akademgorodok, Russia | -    | -           | -            | JF778935 | -        | -          | Leppänen et al. (2011)            |
| 79 | 3266RqBEbr  | <i>M. rubra</i>         | L1    | -           | Bryssel, Belgium      | -    | -           | -            | JF778999 | GU109425 | -          | Leppänen et al. (2011)            |
| 80 | RS201R/98   | <i>M. rubra</i>         | L1    | -           | Hanko, Finland        | -    | -           | -            | FJ824440 | FJ824483 | -          | Jansen et al. (2010)              |
| 81 | RS14802     | <i>M. arisana</i>       | L2    | -           | Nantou Co., Taiwan    | -    | -           | -            | FJ824430 | FJ824473 | -          | Jansen et al. (2010)              |
| 82 | GJ376       | <i>M. kotokui</i>       | L2    | -           | Hokkaido, Japan       | -    | -           | -            | GQ255154 | GU109409 | -          | Jansen et al. (2010)              |
| 83 | RS125/02    | <i>M. kotokui</i>       | L2    | -           | Hokkaido, Japan       | -    | -           | -            | GQ255155 | GU109410 | -          | Jansen et al. (2010)              |
| 84 | RS286/96    | <i>M. ruginodis</i>     | L2    | -           | Hanko, Finland        | -    | -           | -            | FJ824441 | FJ824484 | -          | Jansen et al. (2010)              |
| 85 | GJ427       | <i>M. ruginodis</i>     | L2    | -           | Trabzon, Turkey       | -    | -           | -            | GQ255170 | -        | -          | Jansen et al. (2010)              |
| 86 | GJ428       | <i>M. ruginodis</i>     | L2    | -           | Trabzon, Turkey       | -    | -           | -            | FJ379221 | GU109425 | -          | Jansen et al. (2009)              |
| 87 | Mrug109     | <i>M. ruginodis</i>     | L2    | -           | Hanko, Finland        | -    | -           | -            | AY280601 | -        | -          | Savolainen and Vepsäläinen (2003) |
| 88 | RS159/02    | <i>M. formosae</i>      | ritae | -           | Chiayi County, Taiwan | -    | -           | -            | FJ824433 | FJ824476 | -          | Jansen et al. (2010)              |
| 89 | GJ390       | <i>M. indica</i>        | ritae | -           | Maghang Kharka, Nepal | -    | -           | -            | GQ255147 | GU109402 | -          | Jansen et al. (2010)              |
| 90 | GJ406       | <i>Myrmica n. sp. 2</i> | ritae | -           | Lao Cai, Vietnam      | -    | -           | -            | GQ255164 | GU109418 | -          | Jansen et al. (2010)              |
| 91 | GJ403       | <i>M. schoedli</i>      | ritae | -           | Lao Cai, Vietnam      | -    | -           | -            | GQ255181 | GU109437 | -          | Jansen et al. (2010)              |
| 92 | RS145/02    | <i>M. serica</i>        | ritae | -           | Nantou Co., Taiwan    | -    | -           | -            | FJ824444 | FJ824488 | -          | Jansen et al. (2010)              |
| 93 | GJ393       | <i>M. weberi</i>        | ritae | -           | Maghang Kharka        | -    | -           | -            | GQ255161 | GU109419 | -          | Jansen et al. (2010)              |

|    |          |                     |                   |   |                                |   |   |   |          |          |   |                      |
|----|----------|---------------------|-------------------|---|--------------------------------|---|---|---|----------|----------|---|----------------------|
| 94 | GJ415    | <i>M. yamanei</i>   | <i>ritae</i>      | - | Lao Cai, Vietnam               | - | - | - | GQ255198 | GU109454 | - | Jansen et al. (2010) |
| 95 | GJS5     | <i>M. rugosa</i>    | <i>rugosa</i>     | - | Kollektorskij Mts., Kyrgyzstan | - | - | - | GQ255149 | GU109404 | - | Jansen et al. (2010) |
| 96 | RS2712   | <i>M. excelsa</i>   | <i>lobicornis</i> | - | Matsumoto, Japan               | - | - | - | FJ824432 | FJ824475 | - | Jansen et al. (2010) |
| 97 | RS123/02 | <i>M. jessensis</i> | <i>lobicornis</i> | - | Hokkaido, Japan                | - | - | - | FJ824435 | FJ824478 | - | Jansen et al. (2010) |
| 98 | GJ386    | <i>M. taediosa</i>  | <i>lobicornis</i> | - | Hokkaido, Japan                | - | - | - | GQ255189 | GU109445 | - | Jansen et al. (2010) |
| 99 | GJ380    | <i>M. luteola</i>   | <i>luteola</i>    | - | Hokkaido, Japan                | - | - | - | GQ255160 | GU109415 | - | Jansen et al. (2010) |

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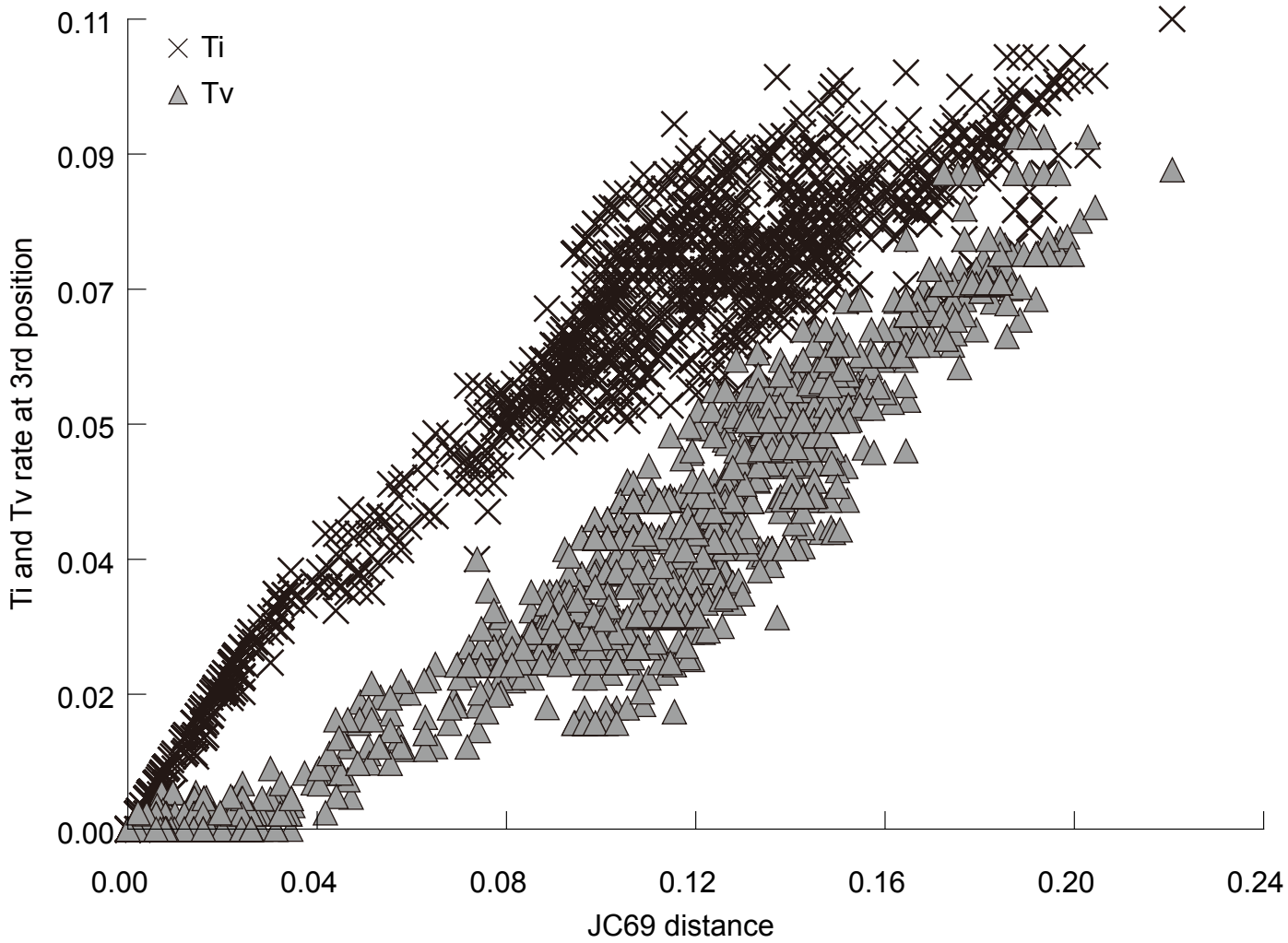
TABLE S2: Character statistics of the data sets.

| <b>Locus</b>        | <b>Number of sequences</b> | <b>Number of parsimony-informative sites</b> | <b>1<sup>st</sup> codon position</b> | <b>2<sup>nd</sup> codon position</b> | <b>3<sup>rd</sup> codon position</b> | <b>Mean proportion of A-T base pairs</b> | <b><math>\chi^2</math> test</b> |
|---------------------|----------------------------|--|--------------------------------------|--------------------------------------|--------------------------------------|--|---------------------------------|
| <i>COI</i> (508 bp) | 99                         | 141  | 26                                   | 6                                    | 109                                  | 0.70                                     | 1.00                            |
| LwRh (347 bp)       | 89                         | 10   | 2                                    | 2                                    | 6                                    | 0.46                                     | 1.00                            |

TABLE S3: Substitution models selected for each data set. Non-uniformity of evolutionary rates among sites were modeled by using a discrete Gamma distribution (+G). Abbreviations: F81, Felsenstein 81; GTR, General Time-Reversible; HKY, Hasegawa-Kishino-Yano; J2, Jobbs 2; TIM,transitional model; TVM,transversional model.

| <b>Locus</b> | <b>Codon position</b> | <b>Model chosen by BIC5</b> |
|--------------|-----------------------|-----------------------------|
| <i>COI</i>   | 1st                   | HKY + G                     |
| ML           | 2nd                   | TIM + G                     |
|              | 3rd                   | J2 + G                      |
| <i>COI</i>   | 1st                   | HKY + G                     |
| Bayes        | 2nd                   | GTR + G                     |
|              | 3rd                   | GTR + G                     |
| <i>LwRh</i>  | 1st                   | TVM + G                     |
| ML           | 2nd                   | F81 + G                     |
|              | 3rd                   | HKY + G                     |
| <i>LwRh</i>  | 1st                   | HKY + G                     |
| Bayes        | 2nd                   | F81 + G                     |
|              | 3rd                   | HKY + G                     |

# COI



# LwRh

