Supplementary file 1. Details of all samples included in the study. Abbreviations for museums: American Museum of Natural History, New York (AMNH); Australian National Wildlife Collection, Canberra (ANWC); Burke Museum of Natural History and Culture, Washington (Burke); Lee Kong Chian Natural History Museum, Singapore (LKCNHM); Museum of Vertebrate Zoology, California (MVZ); Museums Victoria, Melbourne, Australia (NMV); Museum Zoologicum Bogoriense, West Java, Indonesia (MZB); Naturalis Biodiversity Center, Leiden, Netherlands (Naturalis); South Australian Museum, Adelaide (SAMA); Swedish Museum of Natural History, Stockholm (NRM); Western Australian Museum, Perth (WAM); Yale Peabody Museum of Natural History, Connecticut (Peabody). Whole genome resequenced samples were marked with an asterisk (\*) at the end of the sample ID.

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| Sample ID | Taxon | Sample type | Locality | Coordinates (Lat, Lon) (º)  | Date collected | Sources |
| AMNH700010 | *Z. simplex* | Toepad | Pulau Pintu, Gedong, Malaysia | - | 1912-Nov-02 | AMNH |
| AMNH700035 | *Z. auriventer* | Toepad | Kao Nong, Thailand | - | 1913-Jun-26 | AMNH |
| AMNH700016 | *Z. simplex* | Toepad | Sarawak, Borneo, Malaysia | - | 1892-Aug-03 | AMNH |
| WAMA23240 | *Z. unicus* | Toepad | Flores Island, Indonesia | -8.5833, 120.5 | 1990-May-05 | AMNH |
| WAMA23218 | *Z. unicus* | Toepad | Flores Island, Indonesia | -8.5833, 120.5 | 1990-May-08 | WAM |
| AMNH110680 | *Z. palpebrosus* | Toepad | Jura, Assam, India | - | 1906-May-02 | WAM |
| AMNH464406 | *Z. palpebrosus* | Toepad | Burnihat, Khasia Hills, India | - | 1949-May-15 | AMNH |
| LEIDEN54142 | *Z. simplex* | Toepad | Puli, Taiwan | - | 1968-Jun-21 | Naturalis |
| LEIDEN60883 | *Z. melanurus* | Toepad | Cibodas, West Java, Indonesia | - | 1989-Apr-11 | Naturalis |
| AMNH801953 | *Z. everetti* | Toepad | Mt. Sugar Loaf, Mindanao Island, Philippines | - | 1969-May-06 | AMNH |
| AMNH801954 | *Z. everetti* | Toepad | Mt. Sugar Loaf, Mindanao Island, Philippines | - | 1969-May-12 | AMNH |
| AMNH388012 | *Z. flavus* | Toepad | Forest of Mocara Karang, Batavia, Java, Indonesia | - | 1949-Mar-24 | AMNH |
| AMNH266601 | *Z. chloris* | Toepad | Djampea Is., between Flores and Celebes, Indonesia | - | 1927-Sep-05 | AMNH |
| AMNH700311 | *Z. chloris* | Toepad | Aru, Indonesia | - | 1900-Sep-23 | AMNH |
| AMNH700342 | *Z. chloris* | Toepad | Bima, Sumbawa, Indonesia | - | 1896-Aug | AMNH |
| AMNH700350 | *Z. chloris* | Toepad | Lombok, Indonesia | - | 1896-May | AMNH |
| AMNH700316 | *Z. flavissimus* | Toepad | Tukang Besi, Indonesia | - | 1901-Dec-10 | AMNH |
| AMNH700053 | *Z. atricapilla* | Toepad | Kinabalu, Borneo, Malaysia | - | 1896-Oct | AMNH |
| AMNH700052 | *Z. atricapilla* | Toepad | Korinchi Peak, Sumatra, Indoensia | - | 1914-May-16 | AMNH |
| AMNH700230 | *Z. citrinella* | Toepad | Dammer, Southwest islands, Indonesia | - | 1905-Nov-10 | AMNH |
| AMNH700211 | *Z. citrinella* | Toepad | Luang, Southwest islands, Indonesia | - | 1905-Nov-11 | AMNH |
| AMNH700247 | *Z. citrinella* | Toepad | Cairncross Island, Australia | - | 1911-Jul-20 | AMNH |
| AMNH700180 | *Z. citrinella* | Toepad | Savu, Indonesia | - | 1896-Aug | AMNH |
| AMNH347034 | *Z. citrinella* | Toepad | Sumba, Indonesia | - | 1932-Jun-09 | AMNH |
| SAMB6173 | *Z. auriventer* | Toepad | Nicobar Island, India | - | 1850s to 1870s | SAMA |
| ANWCB30042 | *Z. citrinella* | Toepad | East Timor, Democratic Republic of Timor-Leste | -8.6, 126.3833 | 1973-Apr-13 | ANWC |
| NRM572229 | *Z. emiliae* | Toepad | Mt. Poi, Borneo, Malaysia | - | 1923-Nov-03 | NRM |
| NRM572230 | *Z. uropygialis* | Toepad | Kai, Indonesia | - | 1897-Dec-16 | NRM |
| NRM572232 | *Z. consobrinorum* | Toepad | Lalolei, Southeast Sulawesi, Indonesia | - | 1932-Feb-10 | NRM |
| AMNH700399 | *Z. stalkeri* | Toepad | Mansela, Seram, Indonesia | - | 1911-May-30 | AMNH |
| AMNH700385 | *Z. buruensis* | Toepad | Waicno, Buru, Indonesia | - | 1912-Jan-18 | AMNH |
| AMNH705996 | *Z. novaeguineae* | Toepad | Mt. Hagen, Papua New Guinea | - | 1950-Jul-24 | AMNH |
| AMNH338107 | *Z. natalis* | Toepad | Horsburgh Island, Cocos Islands | - | 1939 | AMNH |
| AMNH467900 | *Z. atriceps* | Toepad | Maluka Utara, Halmahera, Indonesia | - | 1931-Apr-28 | AMNH |
| P062082 | *Z. japonicus* | Toepad | Mt. Katanglad, Mindanao, Philippines | - | 1960-Apr-28 | Peabody |
| P097095 | *Z. meyeni* | Toepad | Lumban, Laguna Province, Philippines | - | 1975-Feb-01 | Peabody |
| P020253 | *Z. ceylonensis* | Toepad | Nuwara Eliya, Sri Lanka | - | 1950-Aug-31 | Peabody |
| P020904 | *Z. japonicus* | Toepad | Mount Fuji, Honshu Island, Japan | - | 1951-Jun-19 | Peabody |
| P076595 | *Z. atriceps* | Toepad | Achango, Halmahera, Indonesia | - | 1954-Sep-08 | Peabody |
| P076596 | *Z. atriceps* | Toepad | Bacan, Indonesia | - | 1954-Oct-01 | Peabody |
| P048642 | *Z. nigrorum* | Toepad | Mt. Simminaplan, Ilocos Norte Province, Philippines | - | 1959-Apr-18 | Peabody |
| ZRC3.4654 | *Z. japonicus* | Toepad | Kerinci, Sumatra, Indonesia | - | Unknown | LKCNHM |
| ZRC3.4613 | *Z. simplex* | Toepad | Kerinci, Sumatra, Indonesia | - | Unknown | LKCNHM |
| ZRC90.123a | *Z. auriventer* | Toepad | Mt. Poi, Borneo, Malaysia | - | Unknown | LKCNHM |
| ZRC3.4602 | *Z. simplex* | Toepad | Natuna Island, Indonesia | - | Unknown | LKCNHM |
| ZRC29.3.29 | *Z. emiliae* | Toepad | Mt. Kinabalu, Borneo, Malaysia | - | Unknown | LKCNHM |
| P076601 | *Z. atrifrons* | Toepad | Tomohon, Sulawesi, Indonesia | - | 1954-Oct-28 | Peabody |
| NRM572231 | *Z. anomalus* | Toepad | Oeroe, South Sulawesi, Indonesia | - | 1930-Aug-11 | NRM |
| OWE010 | *Z. simplex* | Blood | Jurong Bird Park (JBP), Singapore | - | 2016-Jun-24 | JBP donation |
| J3590 | *Z. simplex* | Blood | Springleaf, Singapore | 1.4017, 103.8177 | 2015-Jun-26 | Fieldwork |
| OWE003 | *Z. simplex* | Blood | Jurong Bird Park, Singapore | - | 2016-Jun-24 | JBP donation |
| J3598 | *Z. simplex* | Blood | Springleaf, Singapore | 1.4017, 103.8177 | 2015-Jun-26 | Fieldwork |
| KM08 | *Z. melanurus* | Blood | Bogor, Java, Indonesia | - | Unknown | Fieldwork |
| KM02 | *Z. melanurus* | Blood | Bogor, Java, Indonesia | - | Unknown | MZB |
| KM03 | *Z. melanurus* | Blood | Bogor, Java, Indonesia | - | Unknown | MZB |
| WEYE08 | *Z. chloris* | Blood | Bogor, Java, Indonesia | - | Unknown | MZB |
| PEN04 | *Z. simplex* | Blood | Kedah, Malaysia | - | 2016 | Fieldwork |
| EWE02 | *Z. auriventer* | Blood | Lojing Highlands, Malaysia | 4.5985, 101.4402 | Unknown | Fieldwork |
| EWE05 | *Z. auriventer* | Blood | Lojing Highlands, Malaysia | 4.5985, 101.4402 | Unknown | Fieldwork |
| EWE07 | *Z. auriventer* | Blood | Lojing Highlands, Malaysia | 4.5985, 101.4402 | Unknown | Fieldwork |
| PJG224 | *Z. japonicus* | Tissue | Hawaii, Honolulu, United States | 19.6408, -155.4642 | Unknown | Burke |
| NTT004 | *Z. citrinella* | Tissue | Alor, Indonesia | -8.299, 124.740 | 2015-Nov-24 | Fieldwork |
| NTT005 | *Z. citrinella* | Tissue | Alor, Indonesia | -8.299, 124.740 | 2015-Nov-24 | Fieldwork |
| NTT063 | *Z. citrinella* | Tissue | Kupang, Timor, Indonesia | -10.030, 123.804 | 2015-Nov-27 | Fieldwork |
| NTT138 | *Z. citrinella* | Tissue | Mutis, Timor, Indonesia | -9.598, 124.205 | 2015-Dec-01 | Fieldwork |
| NTT115 | *Z. citrinella* | Tissue | Rote, Indonesia | -10.787, 123.201 | 2015-Nov-30 | Fieldwork |
| NTT123 | *Z. citrinella* | Tissue | Rote, Indonesia | -10.787, 123.201 | 2015-Nov-30 | Fieldwork |
| TBU22 | *Z. japonicus* | Tissue | Taliabu, Indonesia | -1.7936, 124.8036 | 2013-Dec-09 | Fieldwork |
| TBU23 | *Z. japonicus* | Tissue | Taliabu, Indonesia | -1.7936, 124.8036 | 2013-Dec-09 | Fieldwork |
| DOT12552 | *Z. japonicus* | Tissue | Sulawesi Selatan, Indonesia | - | 1998-May-20 | AMNH |
| DOT12558 | *Z. chloris* | Tissue | Sulawesi Seletan, Indonesia | - | 1998-May-21 | AMNH |
| FL20008 | *Z. simplex* | Tissue | Sichuan, China | 31.0340, 103.1818 | 2014-May-02 | Fieldwork |
| FL20009 | *Z. simplex* | Tissue | Sichuan, China | 31.0340, 103.1818 | 2014-May-02 | Fieldwork |
| FL20054 | *Z. erythropleurus* | Tissue | Sichuan, China | 31.0300, 103.1818 | 2014-May-15 | Fieldwork |
| FL20203 | *Z. erythropleurus* | Tissue | Sichuan, China | 31.0340, 103.1818 | 2014-Jun-02 | Fieldwork |
| FL3638 | *Z. palpebrosus* | Tissue | Sichuan, China | 27.2363, 101.5877 | Unknown | Fieldwork |
| FL3639 | *Z. palpebrosus* | Tissue | Sichuan, China | 27.2363, 101.5877 | Unknown | Fieldwork |
| ANWCB56431 | *Z. luteus* | Tissue | King River Road, Western Australia | -15.5768, 128.1409 | 2014-Sep-11 | ANWC |
| ANWCB56434 | *Z. luteus* | Tissue | King River Road, Western Australia | -15.5768, 128.1409 | 2014-Sep-11 | ANWC |
| ANWCB60155 | *Z. lateralis* | Tissue | Western Australia | -31.677, 128.883 | 2017-Aug-06 | ANWC |
| ANWCB52557 | *Z. fuscicapilla* | Tissue | Muller Range, Papua New Guinea | -5.6566, 142.3046 | 2009-Sep-16 | ANWC |
| DOT19901 | *Z. hypoxanthus* | Tissue | Bismarck, Papua New Guinea | -3.2749, 151.9304 | 2012-Oct-16 | AMNH |
| RCKB2303 | *Z. atrifrons* | Tissue | Dako, South Sulawesi, Indonesia | - | 2018-Jul-11 | MVZ |
| RCKB2264 | *Z. atrifrons* | Tissue | Dako, South Sulawesi, Indonesia | - | 2018-Jul-05 | MVZ |
| Ac01 | *Z. melanurus* | Blood | Banda Aceh, Sumatra, Indonesia | - | 2018-Dec-07 | Fieldwork |
| Ac04 | *Z. melanurus* | Blood | Banda Aceh, Sumatra, Indonesia | - | 2018-Dec-07 | Fieldwork |
| Ac05 | *Z. melanurus* | Blood | Banda Aceh, Sumatra, Indonesia | - | 2018-Dec-07 | Fieldwork |
| ENG1 | *Z. simplex* | Feather | Enggano, Sumatra, Indonesia | - | Unknown | Fieldwork |
| Afri01 | *Z. senegalensis* | Tissue | Africa | - | Unknown | Captive |
| BG02 | *Z. chloris* | Blood | Bogor, Java, Indonesia | - | Unknown | MZB |
| BG06 | *Z. chloris* | Blood | Bogor, Java, Indonesia | - | Unknown | MZB |
| LMB66\* | *Z. chloris* | Tissue | Kai Kecil, Indonesia | - | 2014-Jul-14 | MVZ |
| ALS937\* | *Z. chloris* | Tissue | Kur, Indonesia | - | Aug-14 | MVZ |
| LMB30\* | *Z. citrinella* | Tissue | Wetar, Indonesia | - | 2013-Jul-19 | MVZ |
| LMB79\* | *Z. citrinella* | Tissue | Babar, Indonesia | - | 2014-Jul-27 | MVZ |
| LMB8\* | *Z. citrinella* | Tissue | Timor, Indonesia | - | 2013-Jul-9 | MVZ |
| LMB99\* | *Z. citrinella* | Tissue | Tanimbar, Indonesia | - | 2014-Jul-30 | MVZ |
| A22083\* | *Z. chloris* | Tissue | Sumbawa, Indonesia | -8.225, 119.0056 | 1988-Oct-22 | WAM |
| Z5848\* | *Z. luteus* | Tissue | Cape Range National Park, Western Australia, Australia | -21.97, 114.47 | 1996-Oct-11 | NMV |
| Z50534\* | *Z. natalis* | Tissue | Christmas Island, Australia | -10.5, 105.67 | Unknown | NMV |