**Supplementary Materials**

**Supplementary Table S1. Jiangxi giant salamander survey effort for juveniles and adults in nature reserve, Jing’an County, Jiangxi, China, including year and months of surveys, the number of surveys, and person-hours (pers.hrs.) spent.**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Year | Month | # of surveys (pers.hrs) | # of catch individual | PIT  tagged individuals | PIT tagged juveniles | PIT tagged adults | Recapture individuals | Recapture % | Catch per effort unit | Hours per individual |
| 2020 | **Sep** | 7 | 3 | 0 | 0 | 0 | / | / | 0.43 | 2.33 |
| 2020 | **Nov** | 5 | 2 | 0 | 0 | 0 | 0 | / | 0.40 | 2.50 |
| 2021 | **Jan** | 22 | 13 | 5 | 3 | 2 | 0 | / | 0.59 | 1.69 |
| 2021 | **Feb** | 9 | 7 | 2 | 2 | 0 | 0 | / | 0.78 | 1.29 |
| 2021 | **Arp** | 24 | 33 | 26 | 13 | 13 | 0 | / | 1.38 | 0.73 |
| 2021 | **May** | 1 | 6 | 5 | 4 | 1 | 1 | 20.00% | 6.00 | 0.17 |
| 2021 | **Jun** | 3.80 | 21 | 19 | 12 | 7 | 1 | 5.26% | 5.53 | 0.18 |
| 2021 | **Jul** | 19.30 | 83 | 76 | 58 | 18 | 9 | 11.84% | 4.30 | 0.23 |
| 2021 | **Aug** | 5.50 | 11 | 7 | 6 | 1 | 3 | 42.86% | 2.00 | 0.50 |
| 2021 | **Sep** | 4 | 10 | 5 | 4 | 1 | 1 | 20.00% | 2.50 | 0.40 |
| 2021 | **Oct** | 4.80 | 27 | 24 | 15 | 9 | 6 | 25.00% | 5.63 | 0.18 |
| 2021 | **Nov** | 7.50 | 20 | 16 | 11 | 5 | 8 | 50.00% | 2.67 | 0.38 |
| 2021 | **Dec** | 22.50 | 26 | 17 | 9 | 8 | 9 | 52.94% | 1.16 | 0.87 |
| 2022 | **Jan** | 2.50 | 5 | 3 | 3 | 0 | 2 | 66.67% | 2.00 | 0.50 |
| 2022 | **Feb** | 1.50 | 2 | 0 | 0 | 0 | 0 | 0.00% | 1.33 | 0.75 |
| 2022 | **Mar** | 7 | 22 | 17 | 10 | 7 | 10 | 58.82% | 3.14 | 0.31 |
|  | **Total** | **146.40** | **291** | **222** | **150** | **72** | **50** | **22.52%** | **1.99** | **0.50** |

**Supplementary Table S2. Jiangxi giant salamander survey effort for larvae in nature reserve, Jing’an County, Jiangxi, China, including dates of surveys, the number of surveys and person hours (pers.hrs) spent.**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Date | # of surveys (pers.hrs) | # of catch larvae | Catch per effort unit | Hour per individual |
| 12/1/2021 | 1 | 27 | 27 | 0.04 |
| 13/1/2021 | 1 | 36 | 36 | 0.03 |
| 14/1/2021 | 6 | 50 | 8.33 | 0.12 |
| 20/1/2021 | 1 | 31 | 31 | 0.03 |
| 26/1/2021 | 1 | 92 | 92 | 0.01 |
| 3/2/2021 | 1 | 49 | 49 | 0.02 |
| 6/2/2021 | 1 | 42 | 42 | 0.02 |
| 19/2/2021 | 1 | 9 | 9 | 0.11 |
| 21/2/2021 | 1 | 5 | 5 | 0.20 |
| 23/2/2021 | 1 | 8 | 8 | 0.13 |
| 25/2/2021 | 1 | 10 | 10 | 0.10 |
| 2/3/2021 | 1 | 6 | 6 | 0.17 |
| 4/3/2021 | 1 | 6 | 6 | 0.17 |
| 7/3/2021 | 1 | 5 | 5 | 0.20 |
| 13/3/2021 | 1 | 3 | 3 | 0.33 |
| 22/3/2021 | 1 | 0 | 0 | / |
| 12/1/2022 | 1 | 5 | 5 | 0.20 |
| 15/1/2022 | 1 | 39 | 39 | 0.03 |
| 18/1/2022 | 1 | 10 | 10 | 0.10 |
| 19/1/2022 | 1 | 12 | 12 | 0.08 |
| 20/1/2022 | 1 | 3 | 3 | 0.33 |
| 25/1/2022 | 1 | 18 | 18 | 0.06 |
| 26/1/2022 | 1 | 18 | 18 | 0.06 |
| 4/2/2022 | 1 | 10 | 10 | 0.10 |
| 5/2/2022 | 1 | 6 | 6 | 0.17 |
| 8/2/2022 | 1 | 4 | 4 | 0.25 |
| 14/2/2022 | 1 | 3 | 3 | 0.33 |
| 15/2/2022 | 1 | 5 | 5 | 0.20 |
| 18/3/2031 | 1 | 5 | 5 | 0.20 |
| 19/3/2022 | 1 | 7 | 7 | 0.14 |
| 22/3/2022 | 1 | 0 | 0 | / |

**Supplementary Table S3. Summary of sample localities and genetic information details for wild-caught Jiangxi giant salamanders (*Andrias jiangxiensis* sp. nov.), and farm-bred individuals.**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Localities of CGS** | **Farm/wild caught localities** | **# of individuals from mitochondrial lineage** | **DataNote** | |
| **Clade U2 of *COI*** | ***COI*** | **SLAF sequences** |
| **Jing'an County, Jiangxi** | **Farm 1, Zhongyuan Town** | 40 | Hap 1: ON150901; Hap 2: ON150902 | 5 |
| **Farm 2, Guanzhuang Town** | 13 | 5 |
| **Daqi Mountain, national nature reserve** | 118 | 18 |

Note: Unique haplotypes of *COI* have been deposited in GenBank. Reduced-Representation Genome Sequencing (RRGS) data of the Jiangxi giant salamander have been deposited in the Genome Sequence Archive (GSA) of the National Genomics Data Center (NGDC) at https://ngdc.cncb.ac.cn/gsa/ with accession number CRA006396.

**Supplementary Table S4. Measurements (mm) of the type series of *Andrias jiangxiensis* sp. nov.**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **KIZ 037728 ♀** | **KIZ 037729 ♂** | **KIZ 037730 ♀** | **KIZ 037731 ♂** |
| **Type Status** | Paratype | Paratype | Paratype | Holotype |
| **SVL** | 382 | 363 | 389 | 381 |
| **TTL** | 577 | 554 | 576 | 589 |
| **TAL** | 195 | 191 | 187 | 208 |
| **AXD** | 196 | 174 | 209 | 199 |
| **TAH** | 72.7 | 60.7 | 67.3 | 76.2 |
| **HL** | 87.4 | 94.4 | 93.5 | 92.9 |
| **HW** | 90.2 | 99.8 | 90.2 | 90.9 |
| **EL** | 4.4 | 5.1 | 4.5 | 4.2 |
| **NL** | 1.8 | 1.9 | 1.6 | 1.5 |
| **IOD** | 40.8 | 47.9 | 42.4 | 46.8 |
| **END** | 26.1 | 28.6 | 26.4 | 27.6 |
| **SOD** | 9.8 | 9.1 | 9.3 | 9.5 |
| **IND** | 14.8 | 16.5 | 14.9 | 14.8 |
| **FLL** | 57.6 | 60.9 | 63.4 | 56.1 |
| **PLL** | 73.1 | 75.1 | 70.3 | 71.5 |
| **FI** | 8.1 | 9.2 | 9.8 | 7.2 |
| **FII** | 12.7 | 13.1 | 14.0 | 10.1 |
| **FIII** | 11.3 | 11.7 | 14.1 | 8.5 |
| **FIV** | 7.9 | 8.7 | 9.2 | 6.5 |
| **TI** | 7.3 | 7.0 | 7.4 | 5.9 |
| **TII** | 13.3 | 14.6 | 14.0 | 11.1 |
| **TIII** | 15.5 | 15.2 | 15.7 | 13.5 |
| **TIV** | 14.2 | 13.9 | 14.7 | 12.2 |
| **TV** | 8.8 | 7.0 | 7.9 | 6.7 |

Supplementary Dataset S1. Results of the questionnaire survey conducted on giant salamander in villages, and in farms from Jing’an County, Jiangxi, China.

**Supplementary Dataset S1** is listed as a separate excel file due to its large size.