

Table S1. Data on the species analyzed in this study, their respective GenBank and/or Boldsystems accession codes.

| Species | Cytochrome oxidase I (COI) | | Cytochrome b (Cytb) |
|--------------------------------------|----------------------------|----------------|---------------------|
| | Genbank | Boldsystems | |
| <i>Anastomus oscitans</i> | KY040008.1 | - | - |
| | KY040009.1 | - | - |
| <i>Ciconia abdimii</i> | KU722448.1 | GBIR7208-17 | U72774.1 |
| | MT456662.1 | SIBSI057-19 | - |
| | - | ROMC112-07 | - |
| <i>Ciconia boyciana</i> | KJ862146.1 | GBIR9434-19 | AB026193.1 |
| | KJ862145.1 | GBMIN133497-17 | NC_002196.1 |
| | KJ862153.1 | GBMIN133504-17 | U72773.1 |
| <i>Ciconia ciconia</i> | KY754495.1 | MPBM010-17 | AB026818.1 |
| | NC_002197.1 | GBMTG125-16 | NC_002197.1 |
| | MT773178.1 | GBMNC107-20 | MN122897.1 |
| | AB026818.1 | GBMNA11117-19 | KJ456229.1 |
| | AY567881.1 | GBIR1245-09 | U70822.1 |
| | GU571816.1 | BISE414-08 | X86744.1 |
| | GU571817.1 | BISE237-08 | AY567909.1 |
| | MZ050101.1 | - | - |
| | MZ050102.1 | - | - |
| | MZ050103.1 | - | - |
| <i>Ciconia episcopus</i> | U72775.1 | - | - |
| | U72785.1 | - | - |
| <i>Ciconia maguari</i> | FJ027377.1 | KAARG268-07 | MN356211.1 |
| | JQ174456.1 | USNMA390-10 | DQ485896.1 |
| | JQ174457.1 | USNMA391-10 | U72772.1 |
| | JQ174458.1 | USNMK269-11 | - |
| | JQ174455.1 | USNMK270-11 | - |
| | MN356211.1 | - | - |
| | - | - | - |
| | - | - | - |
| <i>Ciconia nigra</i> | NC_023946.1 | GBMTG4880-16 | KY767670.1 |
| | KF906246.1 | GBMNA11115-19 | KF906246.1 |
| | AY660580.1 | GBIR7379-19 | NC_023946.1 |
| | AY567882.1 | GBIR1244-09 | MK818509.1 |
| | KY767670.1 | GBIR10477-19 | U72771.1 |
| | MK818509.1 | - | AY567910.1 |
| <i>Ciconia stormi</i> | - | - | U72776.1 |
| <i>Ephippiorhynchus asiaticus</i> | - | - | U72782.1 |
| | - | - | U72780.1 |
| <i>Ephippiorhynchus senegalensis</i> | - | ROMC242-07 | U72781.1 |

| | | | |
|---------------------------------|-------------|----------------|-------------|
| | - | ROMC243-07 | KX534432.1 |
| <i>Jabiru mycteria</i> | JN801320.1 | BOTW286-05 | U72770.1 |
| | JQ175174.1 | USNMI178-11 | U19611.1 |
| <i>Leptoptilos cruminiferus</i> | KJ862147.1 | GBMIN133498-17 | U08950.1 |
| | KJ862148.1 | GBMIN133499-17 | X86754.1 |
| | KJ862149.1 | GBMIN133500-17 | - |
| <i>Leptoptilos javanicus</i> | - | BROMB687-07 | - |
| | JN709936.1 | - | - |
| | ON359972.1 | - | - |
| <i>Mycteria americana</i> | DQ433031.1 | BOTW290-05 | AF082066.2 |
| | DQ433030.1 | BOTW293-05 | DQ485895.1 |
| | FJ027865.1 | KBARG112-07 | U72779.1 |
| | JQ175426.1 | USNMJ268-11 | U08949.1 |
| <i>Mycteria cinerea</i> | - | - | U72778.1 |
| <i>Mycteria ibis</i> | MF580199.1 | GBMIN134913-17 | U72784.1 |
| | KJ862150.1 | GBMIN133501-17 | - |
| | KJ862151.1 | GBMIN133502-17 | - |
| | KJ862152.1 | GBMIN133503-17 | - |
| <i>Mycteria leucocephala</i> | KC439344.1 | GBIR5279-13 | KC439298.1 |
| | HM804932.1 | - | HM804896.1 |
| | HM804933.1 | - | HM804895.1 |
| | - | - | U72777.1 |
| | - | - | MH645666.1 |
| <i>Ardea cinerea</i> | KJ190947.1 | GBMNA11545-19 | KJ190947.1 |
| | NC_025900.1 | GBMTG4795-16 | NC_025900.1 |
| <i>Eudocimus ruber</i> | KR862292.1 | GBMNA11566-19 | KR862292.1 |
| | NC_027504.1 | GBMTG4604-16 | NC_027504.1 |

No data available = -