Supplementary Table 1. Taxa and genes included in this study. Each species sampled is classified by traditional family designation (Sibley and Monroe 1990), and accompanying specimen voucher and GenBank accession data are listed. Among the outgroups, data from six samples of taxa highlighted in bold were combined to form chimeras at the species level (representing the genera *Anthus*, *Fringilla*, and *Carduelis*). Other taxa followed by one or more lines without new taxon information represent chimeras at the individual level. Taxa sampled from museum skins are marked with a dagger. Loci not collected for a given specimen are marked with a dash, whereas loci missing for a given taxon or chimera are marked with an asterisk.

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  |  |  | GenBank Accession | | | | | | | | |
| Family | Taxon | Sourcea | CYTB | ND2 | RAG1 | ACO1-I9 | | FGB-I5 | | MB-I2 | |
| Motacillidae | *Motacilla cinerea* | GenBank | AF526460 | AF526495 | — | — | | — | | — | |
|  |  | UWBM 46534 | — | — | AY057007 | KC007861 | | \* | | KC007670 | |
|  | ***Anthus cinnamomeus*** | GenBank | AF526447 | AF526482 | — | — | | — | | — | |
|  | ***A. hodgsoni*** | AMNH (JGG1026) | — | — | KC007754 | KC007862 | | \* | | KC007671 | |
| Fringillidae | ***Fringilla coelebs*** | GenBank | AF447368 | AF447281 | — | — | | — | | — | |
|  | ***F. montifringilla*** | GenBank | — | — | AY056994 | \* | | \* | | \* | |
|  | ***Carduelis pinus*** | GenBank | AF290142 | AF290105 | — | — | | — | | — | |
|  | ***C. xanthogastra*** | AMNH (unvouchered) | — | — | KC007755 | \* | | KC007586 | | \* | |
|  | *Euphonia laniirostris* | LSUMNS B-18375 | AF006232 | AF447280 | KC007756 | KC007863 | | KC007587 | | KC007672 | |
|  | *Chlorophonia flavirostris* | LSUMNS B-11778 | AF006216 | KC007568 | KC007757 | KC007864 | | KC007588 | | KC007673 | |
|  | *Oreomystis bairdii* | GenBank | AF015763 | \* | — | — | | — | | — | |
|  |  | MVZ 178406 | — | — | KC007758 | KC007865 | | KC007589 | | KC007674 | |
|  | *Paroreomyza montana* | GenBank | AF015759 | \* | — | — | | — | | — | |
|  |  | Unvouchered (fide R. Fleischer) | — | — | KC007759 | KC007866 | | KC007590 | | KC007675 | |
|  | *Vestiaria coccinea* | Unvouchered (fide J. Groth) | AF015756 | AF447311 | KC007760 | \* | | \* | | \* | |
| Emberizidae | *Melophus lathami* | AMNH (JGG1191) | EF529941 | EF529830 | KC007761 | KC007867 | | KC007591 | | KC007676 | |
|  | *Latoucheornis siemsseni* | KU 99851 | KC007554 | KC007569 | KC007762 | KC007868 | | KC007592 | | KC007677 | |
|  | *Emberiza schoeniclus* | GenBank | AF290157 | AF290120 | — | — | | — | | — | |
|  |  | ZMUC (O480) | — | — | AY056992 | KC007869 | | KC007593 | | KC007678 | |
|  | *Miliaria calandra* | UWBM 61357 | EF529949 | EF529838 | KC007763 | KC007870 | | KC007594 | | KC007679 | |
|  | *Calcarius lapponicus* | BMNH (JDW0062) | EF529927 | AF290107 | KC007764 | KC007871 | | KC007595 | | KC007680 | |
|  | *Plectrophenax nivalis* | BMNH (AF1011) | EF529930 | EF529821 | KC007765 | KC007872 | | KC007596 | | KC007681 | |
|  | *Calamospiza melanocorys* | BMNH (JK94-58) | FJ547281 | FJ547322 | KC007766 | KC007873 | | KC007597 | | KC007682 | |
|  | *Passerella iliaca* | BMNH (FOSP91) | FJ547284 | FJ547325 | — | — | | — | | — | |
|  |  | SDSU 2207 | — | — | KC007767 | KC007874 | | KC007598 | | KC007683 | |
|  | *Melospiza lincolnii* | BMNH (JK97-038) | DQ459515 | DQ459535 | KC007768 | KC007875 | | KC007599 | | KC007684 | |
|  | *Zonotrichia leucophrys* | WCSP 22AK [RMZ loan] | KC007555 | KC007570 | KC007769 | KC007876 | | KC007600 | | KC007685 | |
|  | *Junco hyemalis* | MBM (GMS087) | KC007556 | KC007571 | KC007770 | KC007877 | | KC007601 | | KC007686 | |
|  | *Passerculus sandwichensis* | BMNH X7320 | DQ459513 | DQ459533 | KC007771 | KC007878 | | KC007602 | | KC007687 | |
|  | *Ammodramus caudacutus* | Unvouchered (fide J.C. Avise) | DQ459519 | DQ459539 | KC007772 | KC007879 | | KC007603 | | KC007688 | |
|  | *Xenospiza baileyi* | BMNH 23379† | DQ459509 | DQ459529 | — | — | | — | | — | |
|  | *Spizella arborea* | MBM GAV15 | KC007557 | KC007572 | KC007773 | KC007880 | | KC007604 | | KC007689 | |
|  | *Spizella pusilla* | BMNH (JK96-014) | EF529933 | EF529824 | KC007774 | KC007881 | | KC007605 | | KC007690 | |
|  | *Pooecetes gramineus* | BMNH (JK94-063) | DQ459508 | DQ459528 | KC007775 | KC007882 | | KC007606 | | KC007691 | |
|  | *Chondestes grammacus* | MBM (DHB3910) | HQ263421 | HQ263434 | KC007776 | KC007883 | | KC007607 | | KC007692 | |
|  | *Amphispiza bilineata* | MBM (TKA98) | FJ547280 | FJ547321 | KC007777 | KC007884 | | KC007608 | | KC007693 | |
|  | *Aimophila rufescens* | MBM (DHB3531) | FJ547273 | FJ547314 | KC007778 | KC007885 | | KC007609 | | KC007694 | |
|  | *Torreornis inexpectata* | YPM 33725 | KC007558 | — | — | — | | — | | — | |
|  | *Oriturus superciliosus* | FMNH 343328 | DQ459510 | DQ459530 | KC007779 | KC007886 | | KC007610 | | KC007695 | |
|  | *Pipilo chlorurus* | MBM (GTT01) | FJ547258 | FJ547299 | KC007780 | KC007887 | | KC007611 | | \* | |
|  | *Pipilo fuscus* | BMNH (RMZ2373) | AF290160 | AF290123 | — | — | | — | | — | |
|  |  | SDSU 2181 | — | — | KC007781 | KC007888 | | KC007612 | | KC007696 | |
|  | *Melozone biarcuatum* | MBM (JK02-032) | FJ547257 | FJ547298 | KC007782 | KC007889 | | KC007613 | | KC007697 | |
|  | *Arremon taciturnus* | FMNH 433782 | KC007559 | KC007573 | KC007783 | KC007890 | | KC007614 | | KC007698 | |
|  | *Arremonops chloronotus* | KU 2031 | FJ547254 | FJ547295 | KC007784 | KC007891 | | KC007615 | | KC007699 | |
|  | *Atlapetes pileatus* | MZFC (OMVP227) | FJ547251 | EF529828 | — | — | | — | | — | |
|  |  | MBM (GMS577) | — | — | KC007785 | KC007892 | | KC007616 | | KC007700 | |
|  | *Buarremon brunneinucha* | MBM 4600 (DAB1706) | EF529932 | EF529823 | KC007786 | KC007893 | | KC007617 | | KC007701 | |
|  | *Pezopetes capitalis* | LSUMNS B-16232 | DQ459506 | DQ459526 | KC007787 | KC007894 | | KC007618 | | KC007702 | |
|  | *Pselliophorus tibialis* | LSUMNS B-9941 | FJ222658 | DQ459527 | KC007788 | KC007895 | | KC007619 | | KC007703 | |
|  | *Lysurus castaneiceps* | FMNH 430070 | KC007560 | KC007574 | KC007789 | KC007896 | | KC007620 | | KC007704 | |
|  | *Gubernatrix cristata* | MACN Or-ct 040 | JN810077 | JN810465 | JN810601 | JN809957 | | JN810200 | | JN810336 | |
|  | *Paroaria coronata* | FMNH 394390 | EU647990 | EU648049 | JN810626 | JN809983 | | JN810226 | | JN810362 | |
| Parulidae | *Vermivora celata* | MVZ 169123 | AY030123 | AY030149 | — | — | | — | | — | |
|  |  | SDSU 2135 | — | — | KC007790 | KC007897 | | KC007621 | | KC007705 | |
|  | *Parula americana* | STRI JA-PAM1 | AF256502 | AF256495 | KC007791 | GU931868 | | GU931975 | | GU932296 | |
|  | *Parula gutturalis* | LSUMNS B-26458 | AF256507 | AF256498 | KC007792 | GU931827 | | GU931934 | | GU932255 | |
|  | *Dendroica coronata* | MVZ 170226 | AY030120 | AY030146 | — | — | | — | | — | |
|  |  | SDSU 1048 | — | — | KC007793 | KC007898 | | KC007622 | | KC007706 | |
|  | *Catharopeza bishopi* | STRI SVCBI1 | AF383024 | AF383140 | — | — | | — | | — | |
|  |  | STRI SVCBI5 | — | — | KC007794 | GU931865 | | GU931972 | | GU932293 | |
|  | *Mniotilta varia* | STRI JA-MVA1 | AF383006 | AF383122 | — | — | | — | | — | |
|  |  | STRI JA-MVA2 | — | — | KC007795 | GU931825 | | GU931932 | | GU932253 | |
|  | *Setophaga ruticilla* | STRI JA-SRU2 | AF383008 | AF383124 | — | — | | — | | — | |
|  |  | STRI JA-SRU1 | — | — | KC007796 | GU931870 | | GU931977 | | GU932298 | |
|  | *Protonotaria citrea* | LSUMNS B-23575 | AF383030 | AF383146 | KC007797 | GU931826 | | GU931933 | | GU932254 | |
|  | *Helmitheros vermivorus* | STRI JA-HVE1 | AF383004 | AF383120 | — | — | | — | | — | |
|  |  | STRI JA-HVE2 | — | — | KC007798 | GU931823 | | GU931930 | | GU932144 | |
|  | *Limnothlypis swainsonii* | STRI JA-LSW2 | AF383005 | AF383121 | KC007799 | GU931824 | | GU931931 | | GU932252 | |
|  | *Seiurus aurocapilla* | STRI JA-SAU1 | AF383007 | AF383123 | — | — | | — | | — | |
|  |  | STRI PR-SAU1 | — | — | KC007800 | GU931829 | | GU931936 | | GU932257 | |
|  | *Oporornis tolmiei* | UWBM (CDS4192) | AF383029 | AF383145 | KC007801 | GU931894 | | GU932001 | | GU932322 | |
|  | *Geothlypis trichas* | STRI JA-GTR1 | AF383003 | AF383119 | — | — | | — | | — | |
|  |  | SDSU 2380 | — | — | KC007802 | KC007899 | | KC007623 | | KC007707 | |
|  | *Microligea palustris* | STRI RD-MPA1 | AF383021 | AF383137 | KC007803 | GU931925 | | GU932032 | | GU932353 | |
|  | *Teretistris fernandinae* | ANSP B-5548 | AF382999 | AF383115 | KC007804 | GU931929 | | GU932036 | | GU932357 | |
|  | *Leucopeza semperi* | ANSP 507561† | — | GU932358 | — | — | | — | | — | |
|  | *Wilsonia canadensis* | STRI PA-WCAPC55 | AF383016 | AF383132 | — | — | | — | | — | |
|  |  | STRI WCA59 | — | — | KC007805 | GU931914 | | GU932021 | | GU932342 | |
|  | *Cardellina rubrifrons* | LSUMNS B-10178 | AF383026 | AF383142 | KC007806 | GU931911 | | GU932018 | | GU932339 | |
|  | *Ergaticus ruber* | FMNH 394172 | AF383010 | AF383126 | KC007807 | GU931912 | | GU932019 | | GU932340 | |
|  | *Myioborus pictus* | FMNH 394176 | AF383011 | AF383127 | KC007808 | GU931909 | | GU932016 | | GU932337 | |
|  | *Euthlypis lachrymosa* | FMNH (4458) | AF383009 | AF383125 | KC007809 | GU931841 | | GU931948 | | GU932269 | |
|  | *Basileuterus culicivorus* | STRI TR-BCU1 | AF383106 | AF281022 | — | — | | — | | — | |
|  |  | STRI TR-BCU2 | — | — | KC007810 | GU931835 | | GU931942 | | GU932263 | |
|  | *Zeledonia coronata* | LSUMNS B-19939 | AF382998 | AF383114 | KC007811 | GU931928 | | GU932035 | | GU932356 | |
|  | *Icteria virens* | UWBM (CDS4131) | AF383028 | AF383144 | KC007812 | GU931924 | | GU932031 | | GU932352 | |
|  | *Granatellus pelzelni* | LSUMNS B-18554 | AF382995 | AF383111 | — | GU931923 | | GU932030 | | GU932351 | |
|  |  | AMNH (ROP256) | — | — | KC007813 | — | | — | | — | |
|  | *Xenoligea montana* | STRI RD-XMO1 | AF383022 | AF383138 | — | GU931927 | | GU932034 | | GU932355 | |
|  |  | AMNH (NKK1041) | — | — | KC007814 | — | | — | | — | |
| Thraupidae | *Orchesticus abeillei* | FMNH 267940† | JN810097 | — | — | — | | — | | — | |
|  | *Schistochlamys melanopis* | LSUMNS B-9669 | AY383102 | EU648052 | JN810663 | JN810020 | | JN810263 | | JN810399 | |
|  | *Neothraupis fasciata* | LSUMNS B-13914 | AY383100 | EU648047 | JN810620 | JN809976 | | JN810220 | | JN810355 | |
|  | *Cypsnagra hirundinacea* | LSUMNS B-15290 | AF006226 | JN810454 | JN810588 | JN809944 | | JN810188 | | JN810323 | |
|  | *Conothraupis speculigera* | LSUMNS B-5127 | AF006223 | JN810444 | JN810581 | JN809937 | | JN810181 | | JN810316 | |
|  | *Lamprospiza melanoleuca* | LSUMNS B-9678 | AF006238 | KC007575 | KC007815 | KC007900 | | KC007624 | | KC007708 | |
|  | *Cissopis leveriana* | LSUMNS B-1143 | AY383096 | EU648033 | JN810577 | JN809933 | | JN810177 | | JN810312 | |
|  | *Chlorornis riefferii* | LSUMNS B-1859 | AY383093 | EU648032 | JN810575 | JN809931 | | JN810175 | | JN810310 | |
|  | *Compsothraupis loricata* | LACM 45470† | JN810056 | — | — | — | | — | | — | |
|  | *Sericossypha albocristata* | LSUMNS B-5630 | AF006251 | JN810517 | JN810664 | JN810021 | | JN810264 | | JN810400 | |
|  | *Nesospingus speculiferus* | LSUMNS B-11375 | AF489889 | — | — | — | | — | | — | |
|  |  | FMNH 346166 | — | KC007576 | KC007816 | KC007901 | | KC007625 | | KC007709 | |
|  | *Chlorospingus ophthalmicus* | MBM 7094 | EF529936 | EF529826 | — | — | | — | | — | |
|  |  | AMNH (GFB3143) | — | — | KC007817 | KC007902 | | KC007626 | | KC007710 | |
|  | *Cnemoscopus rubrirostris* | LSUMNS B-5624 | AF006222 | JN810437 | JN810578 | JN809934 | | JN810178 | | JN810313 | |
|  | *Hemispingus atropileus* | LSUMNS B-1889 | AF006234 | AF383135 | JN810603 | JN809959 | | JN810203 | | JN810338 | |
|  | *Pyrrhocoma ruficeps* | MVZ 165617 | AF006249 | JN810501 | JN810645 | JN810002 | | JN810244 | | JN810381 | |
|  | *Thlypopsis sordida* | LSUMNS B-7260 | AF006256 | JN810558 | JN810682 | JN810038 | | JN810284 | | JN810418 | |
|  | *Hemithraupis flavicollis* | LSUMNS B-5102 | AF006235 | EU647948 | JN810608 | JN809964 | | JN810208 | | JN810343 | |
|  | *Chrysothlypis chrysomelas* | LSUMNS B-2189 | AF006220 | JN810435 | JN810576 | JN809932 | | JN810176 | | JN810311 | |
|  | *Nemosia pileata* | LSUMNS B-7295 | AF006241 | JN810480 | JN810619 | JN809975 | | JN810219 | | JN810354 | |
|  | *Phaenicophilus palmarum* | LSUMNS B-20106 | AF006245 | KC007577 | KC007818 | KC007903 | | KC007627 | | KC007711 | |
|  | *Calyptophilus frugivorus* | AMNH (NKK1004) | KC007561 | KC007578 | KC007819 | KC007904 | | KC007628 | | KC007712 | |
|  | *Rhodinocichla rosea* | LSUMNS B-37137 | KC007562 | KC007579 | KC007820 | KC007905 | | KC007629 | | KC007713 | |
|  | *Mitrospingus oleagineus* | FMNH 339677 | EF530033 | EF529925 | KC007821 | KC007906 | | KC007630 | | KC007714 | |
|  | *Chlorothraupis carmioli* | LSUMNS B-5510 | AF006219 | KC007580 | KC007822 | KC007907 | | KC007631 | | KC007715 | |
|  | *Orthogonys chloricterus* | LSUMNS B-16937 | KC007562 | KC007581 | KC007823 | KC007908 | | KC007632 | | KC007716 | |
|  | *Eucometis penicillata* | LSUMNS B-6551 | FJ799875 | JN810464 | JN810600 | JN809956 | | JN810199 | | JN810335 | |
|  | *Lanio fulvus* | LSUMNS B-2694 | EU647917 | EU647951 | JN810616 | JN809972 | | JN810216 | | JN810351 | |
|  | *Creurgops dentata* | LSUMNS B-580 | AF006224 | JN810447 | JN810584 | JN809940 | | JN810184 | | JN810319 | |
|  | *Heterospingus xanthopygius* | LSUMNS B-2324 | EU647915 | EU647949 | JN810609 | JN809965 | | JN810209 | | JN810344 | |
|  | *Tachyphonus cristatus* | LSUMNS B-9548 | FJ799888 | FJ799856 | JN810671 | JN810027 | | JN810271 | | JN810407 | |
|  | *Trichothraupis melanops* | AMNH DOT 2464 | FJ799899 | JN810559 | — | — | | — | | — | |
|  |  | UWBM 70274 | — | — | JN810686 | JN810042 | | JN810288 | | JN810422 | |
|  | *Habia fuscicauda* | FMNH 343367 | KC007564 | KC007582 | KC007824 | KC007909 | | KC007633 | | KC007717 | |
|  | *Piranga ludoviciana* | BMNH (JK94-105) | EF529998 | AF290109 | — | — | | — | | — | |
|  |  | SDSU 2383 | — | — | JN810692 | JN810049 | | JN810295 | | JN810429 | |
|  | *Calochaetes coccineus* | LSUMNS B-6134 | AY383092 | EU648028 | JN810567 | JN809923 | | JN810167 | | JN810302 | |
|  | *Ramphocelus carbo* | FMNH 430084 | U15723 | JN810502 | JN810646 | JN810003 | | JN810245 | | JN810382 | |
|  | *Spindalis zena* | STRI PR-SZE3 | AF383018 | AF383134 | — | — | | — | | — | |
|  |  | FMNH 331110 | — | — | KC007825 | KC007910 | | KC007634 | | KC007718 | |
|  | *Thraupis cyanocephala* | FMNH 433897 | EU647998 | EU648101 | JN810684 | JN810040 | | JN810286 | | JN810420 | |
|  | *Cyanicterus cyanicterus* | NMNH B-10923 | JN810064 | JN810453 | JN810587 | JN809943 | | JN810187 | | JN810322 | |
|  | *Bangsia arcaei* | NMNH B-1412 | EU647968 | EU647968 | JN810564 | JN809920 | | JN810164 | | JN810299 | |
|  | *Buthraupis wetmorei* | LSUMNS B-337 | EU647980 | EU648027 | JN810566 | JN809922 | | JN810166 | | JN810301 | |
|  | *Wetmorethraupis sterrhopteron* | FMNH 275691† | EU648004 | — | — | — | | — | | — | |
|  | *Anisognathus somptuosus* | LSUMNS B-566 | AY383090 | EU648011 | JN810563 | JN809919 | | JN810163 | | JN810298 | |
|  | *Stephanophorus diadematus* | AMNH (PRS 9915) | EU647992 | EU648053 | JN810669 | JN810025 | | JN810269 | | JN810405 | |
|  | *Iridosornis jelskii* | FMNH 430099 | EU647982 | EU648038 | JN810615 | JN809971 | | JN810215 | | JN810350 | |
|  | *Dubusia taeniata* | LSUMNS B-7710 | AY383098 | AY383171 | JN810597 | JN809953 | | JN810196 | | JN810332 | |
|  | *Delothraupis castaneoventris* | LSUMNS B-3607 | AY383097 | EU648034 | JN810590 | JN809946 | | JN810190 | | JN810325 | |
|  | *Pipraeidea melanonota* | LSUMNS B-12070 | AY383101 | EU648051 | JN810635 | JN809992 | | JN810235 | | JN810371 | |
|  | *Chlorochrysa phoenicotis* | LSUMNS B-34873 | AY383094 | EU648031 | JN810573 | JN809929 | | JN810173 | | JN810308 | |
|  | *Tangara cyanocephala* | FMNH 427278 | AY383117 | AY383194 | JN810676 | JN810032 | | JN810277 | | JN810412 | |
|  | *Iridophanes pulcherrima* | MVZ 169712 | AY190169 | JN810475 | JN810613 | JN809969 | | JN810213 | | JN810348 | |
|  | *Dacnis* [*Pseudodacnis*] *hartlaubi* | AMNH 181785† | JN810067 | — | — | — | | — | | — | |
|  | *Dacnis cayana* | LSUMNS B-15077 | AF006227 | JN810456 | JN810589 | JN809945 | | JN810189 | | JN810324 | |
|  | *Chlorophanes spiza* | LSUMNS B-2838 | AF006215 | JN810434 | JN810574 | JN809930 | | JN810174 | | JN810309 | |
|  | *Cyanerpes cyaneus* | FMNH 427305 | FJ799873 | FJ799839 | JN810586 | JN809942 | | JN810186 | | JN810321 | |
|  | *Xenodacnis parina* | LSUMNS B-7760 | AF006257 | EU647960 | JN810688 | JN810045 | | JN810291 | | JN810425 | |
|  | *Conirostrum margaritae* | LSUMNS B-7293 | EU647892 | EU647925 | JN810580 | JN809936 | | JN810180 | | JN810315 | |
|  | *Oreomanes fraseri* | LSUMNS B-2069 | AF006244 | EU647953 | JN810623 | JN809979 | | JN810223 | | JN810358 | |
|  | *Tersina viridis* | LSUMNS B-9680 | AF006255 | — | JN810680 | JN810036 | | JN810282 | | JN810416 | |
|  |  | LSUMNS B-14819 | — | AF447309 | — | — | | — | | — | |
|  | *Catamblyrhynchus diadema* | FMNH 433908 | JN810051 | — | JN810569 | JN809925 | | JN810169 | | JN810304 | |
|  |  | LSUMNS B-338 | — | AF447271 | — | — | | — | | — | |
|  | *Oreothraupis arremonops* | FMNH250085† | KC007565 | — | — | — | | — | | — | |
|  | *Urothraupis stolzmanni* | ZMUC C120310 | JN810160 | JN810560 | **\*** | JN810043 | | JN810289 | | JN810423 | |
|  | *Nephelornis oneilli* | LSUMNS B-8402 | AF006243 | JN810481 | JN810621 | JN809977 | | JN810221 | | JN810356 | |
|  | *Charitospiza eucosma* | LSUMNS B-15356 | JN810053 | JN810433 | JN810571 | JN809927 | | JN810171 | | JN810306 | |
|  | *Coryphaspiza melanotis* | LSUMNS B-6826 | JN810062 | JN810445 | JN810582 | JN809938 | | JN810182 | | JN810317 | |
|  | *Saltatricula multicolor* | MVZ 179401 | AF489892 | — | JN810662 | JN810019 | | JN810262 | | JN810398 | |
|  |  | MBM 5447 | — | EF529913 | — | — | | — | | — | |
|  | *Coryphospingus cucullatus* | FMNH 334587 | FJ799869 | — | JN810583 | JN809939 | | JN810183 | | JN810318 | |
|  |  | UMMZ 235435 | — | AF447274 | — | — | | — | | — | |
|  | *Rhodospingus cruentus* | LSUMNS B-5184 | FJ799884 | FJ799851 | JN810648 | JN810005 | | JN810248 | | JN810384 | |
|  | *Phrygilus fruticeti* | MBM 5412 | JN810103 | JN810489 | JN810632 | JN809989 | | JN810232 | | JN810368 | |
|  | *Melanodera xanthogramma* | AMNH (RTC364) | EU647918 | EU647952 | JN810618 | JN809974 | | JN810218 | | JN810353 | |
|  | *Haplospiza rustica* | FMNH 433797 | EU647913 | EU647946 | JN810602 | JN809958 | | JN810201 | | JN810337 | |
|  | *Acanthidops bairdii* | LSUMNS B-16267 | AF489878 | EU647924 | JN810562 | JN809918 | | JN810162 | | JN810297 | |
|  | *Lophospingus griseocristatus* | FMNH 334558 | EU647987 | EU648043 | JN810617 | JN809973 | | JN810217 | | JN810352 | |
|  | *Donacospiza albifrons* | KU 3316 | JN810074 | JN810462 | JN810596 | JN809952 | | JN810195 | | JN810331 | |
|  | *Rowettia goughensis* | Unvouchered ( *fide* Peter Ryan) | JN810112 | JN810509 | JN810649 | JN810006 | | JN810249 | | JN810385 | |
|  | *Nesospiza acunhae* | Unvouchered ( *fide* Peter Ryan) | JN810096 | JN810482 | JN810622 | JN809978 | | JN810222 | | JN810357 | |
|  | *Diuca diuca* | MBM 6477 | EF529984 | EF529870 | — | — | | — | | — | |
|  |  | AMNH (PRS1143) | — | — | JN810593 | JN809949 | | \* | | JN810328 | |
|  | *Idiopsar brachyurus* | LSUMNS B-22571 | EU647916 | EU647950 | JN810610 | JN809966 | | JN810210 | | JN810345 | |
|  | *Piezorhina cinerea* | LSUMNS B-5169 | JN810106 | JN810492 | JN810634 | JN809991 | | JN810234 | | JN810370 | |
|  | *Xenospingus concolor* | LSUMNS B-5263 | JN810161 | JN810561 | JN810689 | JN810046 | | JN810292 | | JN810426 | |
|  | *Incaspiza pulchra* | LSUMNS B-10387 | JN810092 | JN810474 | JN810612 | JN809968 | | JN810212 | | JN810347 | |
|  | *Poospiza whitii* | LSUMNS B-6573 | JN810111 | JN810500 | JN810643 | JN810000 | | JN810242 | | JN810379 | |
|  | *Sicalis luteola* | FMNH 389274 | AF489893 | EU647957 | JN810666 | JN810022 | | JN810266 | | JN810402 | |
|  | *Emberizoides herbicola* | FMNH 395725 | KC007566 | KC007583 | JN810598 | JN809954 | | JN810197 | | JN810333 | |
|  | *Embernagra platensis* | FMNH 396034 | EU647912 | EU647945 | JN810599 | JN809955 | | JN810198 | | JN810334 | |
|  | *Volatinia jacarina* | FMNH 394403 | AF489903 | — | — | — | | — | | — | |
|  |  | FMNH (ANK228) | — | AF290113 | — | — | | — | | — | |
|  |  | FMNH 392749 | — | — | JN810687 | JN810044 | | JN810290 | | JN810424 | |
|  | *Sporophila lineola* | FMNH 390057 | JN810142 | JN810534 | JN810668 | JN810024 | | JN810268 | | JN810404 | |
|  | *Oryzoborus angolensis* | GenBank | AF310055 | — | — | — | | — | | — | |
|  |  | FMNH 433798 | — | FJ799846 | JN810624 | JN809980 | | JN810224 | | JN810359 | |
|  | *Amaurospiza concolor* | MBM (JK02-012) | EF529995 | EF529881 | — | — | | — | | — | |
|  |  | FMNH 434109 | — | — | KC007826 | KC007911 | | KC007635 | | KC007719 | |
|  | *Melopyrrha nigra* | FMNH 342954 | AY005219 | EU648046 | EF567526 | HQ153053 | | HQ153065 | | HQ153072 | |
|  | *Dolospingus fringilloides* | NMNH B-11981 | JN810073 | JN810461 | JN810595 | JN809951 | | JN810194 | | JN810330 | |
|  | *Catamenia homochroa* | LSUMNS B-426 | JN810052 | JN810432 | JN810570 | JN809926 | | JN810170 | | JN810305 | |
|  | *Tiaris olivacea* | AMNH 25429 (NKK1001) | AF489901 | — | HQ153089 | HQ153055 | | HQ153067 | | HQ153074 | |
|  |  | UMMZ 233813 | — | AF447310 | — | — | | — | | — | |
|  | *Loxipasser anoxanthus* | FMNH 33107 | AF489888 | EU648045 | HQ153086 | HQ153052 | | HQ153064 | | HQ153071 | |
|  | *Loxigilla violacea* | AMNH 25433 (NKK1021) | AF489887 | AY383180 | HQ153085 | HQ153051 | | HQ153063 | | HQ153070 | |
|  | *Diglossa lafresnayii* | LSUMNS B-351 | AF006229 | EU647934 | JN810591 | JN809947 | | JN810191 | | JN810326 | |
|  | *Diglossa* [*Diglossopis*] *cyanea* | FMNH 430124 | EU647909 | EU647942 | JN810592 | JN809948 | | JN810192 | | JN810327 | |
|  | *Coereba flaveola* | UMMZ 227691 | AF489880 | — | — | — | | — | | — | |
|  |  | STRI JA-CFA1 | — | AF281024 | — | — | | — | | — | |
|  |  | FMNH 397158 | — | — | HQ153083 | HQ153049 | | HQ153061 | | HQ153068 | |
|  | *Euneornis campestris* | FMNH 331119 | AF489885 | EU648036 | HQ153084 | HQ153050 | | HQ153062 | | HQ153069 | |
|  | *Melanospiza richardsoni* | GenBank | AF310043 | — | — | — | | — | | — | |
|  | *Geospiza magnirostris* | GenBank | AF108778 | — | — | — | | — | | — | |
|  | *Camarhynchus parvulus* | GenBank | AF108796 | — | — | — | | — | | — | |
|  | *Certhidea olivacea* | GenBank | AF108806 | — | — | — | | — | | — | |
|  | *Pinaroloxias inornata* | GenBank | AF108791 | — | — | — | | — | | — | |
| Cardinalidae | *Spiza americana* | BMNH (JK95-047) | EF530028 | AF290110 | KC007827 | KC007912 | | KC007636 | | KC007720 | |
|  | *Pheucticus tibialis* | LSUMNS B-16050 | JX569837 | JX569838 | JN810690 | JN810047 | JN810293 | | JN810427 | |
|  | *Cardinalis cardinalis* | BMNH (X7320) | EF530007 | EF529902 | JN810693 | JN810050 | | JN810296 | | JN810430 | |
|  | *Caryothraustes canadensis* | LSUMNS B-1414 | EF530023 | EF529916 | KC007828 | KC007913 | | KC007637 | | KC007721 | |
|  | *Parkerthraustes humeralis* | LSUMNS B-9328 | EF530024 | EF529917 | JN810568 | JN809924 | | JN810168 | | JN810303 | |
|  | *Rhodothraupis celaeno* | MZAH (X-17) | EF530027 | EF529920 | KC007829 | KC007914 | | KC007638 | | KC007722 | |
|  | *Periporphyrus erythromelas* | ANSP 187491 (6193) | EF530026 | EF529919 | KC007830 | KC007915 | | KC007639 | | KC007723 | |
|  | *Saltator atriceps* | FMNH 343357 (4885) | EF530019 | EF529912 | JN810650 | JN810007 | | JN810250 | | JN810386 | |
|  | *Cyanoloxia glaucocaerulea* | ANSP 10255 | EF529996 | EF529892 | — | — | | — | | — | |
|  |  | KU (3816) | — | — | KC007831 | KC007916 | | KC007640 | | KC007724 | |
|  | *Cyanocompsa parellina* | UWBM (CWT082) | AF301460 | EF529890 | KC007832 | KC007917 | | KC007641 | | KC007725 | |
|  | *Guiraca caerulea* | LSUMNS 154263 (B-20958) | AF301449 | EF529882 | KC007833 | KC007918 | | KC007642 | | KC007726 | |
|  | *Passerina ciris* | LSUMNS 11711 (B-5694) | AF301459 | EF529883 | JN810691 | JN810048 | | JN810294 | | JN810428 | |
|  | *Porphyrospiza caerulescens* | LSUMNS B-13860 | EF529978 | EF529864 | — | — | | — | | — | |
|  |  | LSUMNS B-13862 | — | — | JN810644 | JN810001 | | JN810243 | | JN810380 | |
| Icteridae | *Psarocolius wagleri* | STRI HAPWA-HA29 | AF472368 | AF472393 | — | — | | — | | — | |
|  |  | LSUMNS B-27280 | — | — | KC007834 | KC007919 | | KC007643 | | KC007727 | |
|  | *Ocyalus latirostris* | ANSP 177928 (LSUMNS B-3625) | AF472382 | AF472407 | KC007835 | KC007920 | | KC007644 | | KC007728 | |
|  | *Psarocolius* [*Gymnostinops*] *montezuma* | LSUMNS B-18096 | AF472377 | AF472402 | — | — | | — | | — | |
|  |  | LSUMNS 164424 (B-28449) | — | — | KC007836 | KC007921 | | KC007645 | | KC007729 | |
|  | *Cacicus sclateri* | ANSP 177931 (LSUMNS B-103568) | AY117718 | AY117746 | KC007837 | KC007922 | | KC007646 | | KC007730 | |
|  | *Amblycercus holosericeus* | KU 1928 | AY117722 | AY117750 | — | — | | — | | — | |
|  |  | LSUMNS 98900 (B-517) | — | — | KC007838 | KC007923 | | KC007647 | | KC007731 | |
|  | *Icterus parisorum* | FMNH 341943 | AF089035 | AF099347 | KC007839 | KC007924 | | KC007648 | | KC007732 | |
|  | *Nesopsar nigerrimus* | FMNH 331150 | AF089045 | AF099359 | KC007840 | KC007925 | | KC007649 | | KC007733 | |
|  | *Gymnomystax mexicanus* | FMNH 339743 | AF089026 | AF109944 | KC007841 | KC007926 | | KC007650 | | KC007734 | |
|  | *Xanthocephalus xanthocephalus* | LSUMNS 126564 | AF089067 | KC007584 | KC007842 | KC007927 | | KC007651 | | KC007735 | |
|  | *Xanthopsar flavus* | FMNH 330747 | AF089066 | AF109938 | KC007843 | KC007928 | | KC007652 | | KC007736 | |
|  | *Chrysomus cyanopus* | FMNH 334636 | AF290174 | AF109931 | KC007844 | KC007929 | | KC007653 | | KC007737 | |
|  | *Agelaius phoeniceus* | FMNH 341893 | AF290173 | AF290134 | KC007845 | KC007930 | | KC007654 | | KC007738 | |
|  | *Sturnella* [*Leistes*] *superciliaris* | FMNH 334657 | AF089038 | FJ154659 | KC007846 | FJ154707 | | KC007655 | | KC007739 | |
|  | *Sturnella neglecta* | FMNH 330039 | AF290164 | AF290127 | — | — | | — | | — | |
|  |  | FMNH 330040 | — | — | KC007847 | KC007931 | | KC007656 | | KC007740 | |
|  | *Pseudoleistes virescens* | FMNH 330796 | AF089052 | AF109937 | KC007848 | KC007932 | | KC007657 | | KC007741 | |
|  | *Amblyramphus holosericeus* | FMNH 334662 | AF089014 | AF109942 | KC007849 | KC007933 | | KC007658 | | KC007742 | |
|  | *Hypopyrrhus pyrohypogaster* | ICN 33977 (IAvH 2078) | AY572451 | AY572450 | — | — | | — | | — | |
|  | *Curaeus curaeus* | AMNH 826156 | AF089020 | AF109943 | KC007850 | KC007934 | | KC007659 | | KC007743 | |
|  | *Gnorimopsar chopi* | FMNH 334679 | AF089025 | AF109941 | KC007851 | KC007935 | | KC007660 | | KC007744 | |
|  | *Oreopsar bolivianus* | FMNH 334687 | AF089046 | AF109940 | KC007852 | KC007936 | | KC007661 | | KC007745 | |
|  | *Lampropsar tanagrinus* | LSUMNS 125586 | AF089037 | AF109946 | — | — | | — | | — | |
|  |  | ANSP 177921 (LSUMNS B-103505) | — | — | KC007853 | KC007937 | | KC007662 | | KC007746 | |
|  | *Macroagelaius imthurni* | FMNH 339783 | AF089039 | AF109945 | KC007854 | KC007938 | | KC007663 | | KC007747 | |
|  | *Dives dives* | MBM 7100 | KC007567 | KC007585 | KC007855 | KC007939 | | KC007664 | | KC007748 | |
|  | *Quiscalus quiscula* | FMNH 341733 | AF089058 | AF109956 | KC007856 | KC007940 | | KC007665 | | KC007749 | |
|  | *Euphagus cyanocephalus* | FMNH 341985 | AF089024 | AF109951 | — | — | | — | | — | |
|  |  | FMNH 342000 | — | — | KC007857 | KC007941 | | KC007666 | | KC007750 | |
|  | *Agelaioides badius* | FMNH 330801 | AF089042 | AF109939 | KC007858 | KC007942 | | KC007667 | | KC007751 | |
|  | *Molothrus ater* | FMNH 350707 | AF290172 | AF109958 | KC007859 | KC007943 | | KC007668 | | KC007752 | |
|  | *Dolichonyx oryzivorus* | FMNH 334721 | AF089022 | AF099357 | KC007860 | FJ154706 | | KC007669 | | KC007753 | |

aInstitutional acronyms include: AMNH (American Museum of Natural History), ANSP (Academy of Natural Sciences of Drexel University), BMNH (University of Minnesota, Bell Museum of Natural History), FMNH (Field Museum of Natural History), IAvH (Instituto de Investigación de Recursos Biológicos, Alexander von Humboldt, Bogotá, Colombia), KU (University of Kansas Natural History Museum), LSUMZ (Louisiana State University Museum of Natural Science), MACN (Museo Argentino de Ciencias Naturales “Bernardino Rivadavia”), MBM (University of Nevada Las Vegas, Marjorie Barrick Museum of Natural History), MZAH (Universidad Nacional Autónoma de México, Facultad de Ciencias, Museo de Zoologia “Alfonso L. Herrera”), MVZ (University of California, Berkeley Museum of Vertebrate Zoology), NMNH (Smithsonian Institution, National Museum of Natural History), SDSU (San Diego State University), STRI (Smithsonian Tropical Research Institute), UWBM (University of Washington, Burke Museum of Natural History and Culture), YPM (Yale Peabody Museum), ZMUC (University of Copenhagen Zoological Museum).