

**Table S2.**

Net change in abundance across North American bird families, 1970-2017. Taxonomy and common names of families follow (100); families listed in order of greatest decline. Net change in abundance expressed in millions of breeding individuals, with upper and lower 90% credible intervals (CI) shown. Percentage of species in each group with negative trend trajectories also noted.

| Family         | Common Name          | N Spp | Net Abundance Change (Millions) & 90% CI |        |        | Percent Change & 90% CIs |        |        | % Spp in Decline |
|----------------|----------------------|-------|------------------------------------------|--------|--------|--------------------------|--------|--------|------------------|
|                |                      |       | Change                                   | UC90   | LC90   | Change                   | LC90   | UC90   |                  |
| Passerellidae  | New World Sparrows   | 38    | -862.0                                   | -925.7 | -798.6 | -38.0%                   | -40.1% | -35.8% | 87%              |
| Parulidae      | New World Warblers   | 44    | -617.5                                   | -737.8 | -509.0 | -37.6%                   | -42.0% | -33.0% | 64%              |
| Icteridae      | New World Blackbirds | 18    | -439.8                                   | -467.8 | -412.4 | -44.2%                   | -45.9% | -42.4% | 83%              |
| Passeridae     | Old World Sparrows   | 2     | -331.0                                   | -374.6 | -290.2 | -81.1%                   | -82.7% | -79.4% | 50%              |
| Alaudidae      | Larks                | 1     | -182.0                                   | -207.2 | -157.8 | -67.4%                   | -70.9% | -63.7% | 100%             |
| Fringillidae   | Finches and Allies   | 13    | -144.6                                   | -189.2 | -91.9  | -36.7%                   | -45.9% | -23.8% | 62%              |
| Tyrannidae     | Tyrant Flycatchers   | 26    | -88.2                                    | -107.3 | -69.5  | -20.1%                   | -23.7% | -16.2% | 50%              |
| Sturnidae      | Starlings            | 1     | -83.2                                    | -94.7  | -72.6  | -49.3%                   | -52.4% | -46.0% | 100%             |
| Turdidae       | Thrushes             | 11    | -77.6                                    | -114.2 | -38.1  | -10.1%                   | -14.6% | -5.0%  | 55%              |
| Hirundinidae   | Swallows             | 8     | -60.8                                    | -86.7  | -31.4  | -22.1%                   | -30.1% | -11.9% | 75%              |
| Caprimulgidae  | Nightjars            | 5     | -39.3                                    | -44.0  | -34.9  | -55.0%                   | -58.0% | -51.5% | 60%              |
| Calcariidae    | Longspurs            | 5     | -39.3                                    | -79.0  | 34.3   | -31.2%                   | -60.5% | 26.8%  | 80%              |
| Odontophoridae | New World Quail      | 5     | -21.1                                    | -32.6  | -10.0  | -51.6%                   | -61.2% | -35.7% | 80%              |
| Laridae        | Gulls, Terns         | 22    | -20.1                                    | -27.6  | -13.3  | -50.5%                   | -58.4% | -39.9% | 73%              |
| Apodidae       | Swifts               | 4     | -19.2                                    | -21.4  | -17.1  | -65.3%                   | -68.1% | -61.6% | 100%             |
| Trochilidae    | Hummingbirds         | 8     | -18.9                                    | -36.0  | -2.2   | -17.0%                   | -27.7% | -2.6%  | 63%              |
| Mimidae        | Thrashers and Allies | 10    | -18.3                                    | -22.1  | -14.6  | -19.4%                   | -22.9% | -16.0% | 80%              |
| Regulidae      | Kinglets             | 2     | -17.9                                    | -47.6  | 12.1   | -7.1%                    | -17.7% | 5.0%   | 50%              |
| Scolopacidae   | Sandpipers           | 32    | -15.4                                    | -19.9  | -11.1  | -38.4%                   | -46.7% | -28.6% | 72%              |
| Cardinalidae   | Cardinals and Allies | 14    | -10.8                                    | -20.6  | -1.0   | -3.3%                    | -6.3%  | -0.3%  | 43%              |
| Laniidae       | Shrikes              | 2     | -10.3                                    | -11.6  | -9.0   | -69.0%                   | -72.2% | -65.7% | 100%             |
| Cuculidae      | Cuckoos              | 4     | -8.9                                     | -10.5  | -7.4   | -47.9%                   | -53.6% | -41.5% | 75%              |
| Motacillidae   | Pipits, Wagtails     | 2     | -8.1                                     | -12.7  | -2.4   | -29.0%                   | -44.0% | -8.6%  | 100%             |
| Corvidae       | Jays, Crows          | 16    | -6.6                                     | -11.8  | -1.2   | -6.5%                    | -11.4% | -1.1%  | 69%              |
| Phylloscopidae | Leaf Warblers        | 1     | -6.4                                     | -16.3  | 0.7    | -50.4%                   | -76.8% | 5.6%   | 100%             |
| Paridae        | Tits, Chickadees     | 10    | -5.3                                     | -11.4  | 0.8    | -4.9%                    | -10.2% | 0.7%   | 70%              |
| Alcidae        | Auks                 | 11    | -4.6                                     | -16.8  | 9.0    | -15.9%                   | -45.8% | 33.4%  | 45%              |
| Icteriidae     | Yellow-breasted Chat | 1     | -3.9                                     | -5.4   | -2.5   | -21.2%                   | -28.0% | -13.9% | 100%             |
| Ardeidae       | Hérons               | 12    | -3.4                                     | -4.4   | -2.4   | -28.0%                   | -34.1% | -21.2% | 58%              |
| Remizidae      | Penduline-Tits       | 1     | -2.6                                     | -4.0   | -1.4   | -42.0%                   | -53.2% | -28.0% | 100%             |
| Charadriidae   | Plovers              | 8     | -1.9                                     | -3.1   | -0.9   | -38.6%                   | -47.4% | -32.0% | 88%              |

|                   |                    |    |       |       |       |        |        |         |      |
|-------------------|--------------------|----|-------|-------|-------|--------|--------|---------|------|
| Alcedinidae       | Kingfishers        | 1  | -1.6  | -1.9  | -1.3  | -47.8% | -51.5% | -44.0%  | 100% |
| Procellariidae    | Petrels            | 1  | -1.0  | -3.8  | 3.7   | -33.8% | -79.3% | 104.4%  | 100% |
| Aegithalidae      | Long-tailed Tits   | 1  | -0.9  | -1.4  | -0.3  | -28.4% | -42.5% | -10.7%  | 100% |
| Podicipedidae     | Grebes             | 6  | -0.7  | -2.6  | 1.9   | -10.9% | -35.8% | 35.7%   | 50%  |
| Sylviidae         | Sylviid Warblers   | 1  | -0.6  | -1.1  | -0.3  | -27.7% | -38.0% | -15.4%  | 100% |
| Cinclidae         | Dippers            | 1  | -0.03 | -0.05 | 0.00  | -15.5% | -27.2% | -2.0%   | 100% |
| Aramidae          | Limpkin            | 1  | 0.00  | -0.02 | 0.02  | -15.0% | -62.1% | 89.0%   | 100% |
| Ciconiidae        | Storks             | 1  | 0.01  | 0.00  | 0.02  | 77.6%  | 18.3%  | 166.9%  | 0%   |
| Haematopodidae    | Oystercatchers     | 2  | 0.01  | 0.01  | 0.02  | 123.7% | 59.5%  | 218.0%  | 0%   |
| Falconidae        | Falcons, Caracaras | 6  | 0.03  | -0.49 | 0.63  | 0.5%   | -9.3%  | 12.6%   | 33%  |
| Anhingidae        | Anhingas           | 1  | 0.03  | 0.02  | 0.04  | 109.1% | 66.3%  | 164.5%  | 0%   |
| Psittacidae       | Parrots            | 1  | 0.1   | 0.0   | 0.3   | >1000% | >1000% | >1000%  | 0%   |
| Tytonidae         | Barn Owls          | 1  | 0.1   | 0.1   | 0.2   | 211.6% | 132.6% | 317.8%  | 0%   |
| Recurvirostridae  | Avocets, Stilts    | 2  | 0.2   | 0.0   | 0.5   | 57.5%  | 16.2%  | 174.6%  | 0%   |
| Ptiliogonatidae   | Silky Flycatchers  | 1  | 0.3   | 0.0   | 0.7   | 26.4%  | -3.8%  | 65.2%   | 0%   |
| Sulidae           | Boobies            | 1  | 0.4   | 0.2   | 0.7   | 988.6% | 497.0% | 1891.7% | 0%   |
| Gaviidae          | Loons              | 3  | 0.4   | 0.1   | 0.8   | 32.6%  | 11.7%  | 60.7%   | 33%  |
| Pandionidae       | Osprey             | 1  | 0.4   | 0.3   | 0.5   | 304.4% | 248.4% | 370.3%  | 0%   |
| Rallidae          | Rails, Coots       | 7  | 0.6   | -1.9  | 4.2   | 6.2%   | -18.1% | 40.5%   | 57%  |
| Gruidae           | Cranes             | 1  | 0.7   | 0.5   | 0.9   | 914.5% | 743.0% | 1119.1% | 0%   |
| Pelecanidae       | Pelicans           | 2  | 0.7   | 0.5   | 1.2   | 810.4% | 534.6% | 1214.2% | 0%   |
| Phalacrocoracidae | Cormorants         | 4  | 0.8   | 0.4   | 1.3   | 152.3% | 73.1%  | 267.3%  | 50%  |
| Strigidae         | Owls               | 11 | 1.7   | 0.5   | 3.4   | 15.9%  | 4.6%   | 30.1%   | 64%  |
| Certhiidae        | Treecreepers       | 1  | 2.5   | 1.5   | 3.7   | 33.6%  | 20.8%  | 47.9%   | 0%   |
| Threskiornithidae | Ibises, Spoonbills | 4  | 2.9   | 1.4   | 6.3   | 332.8% | 167.3% | 639.4%  | 0%   |
| Columbidae        | Doves, Pigeons     | 7  | 3.6   | -17.4 | 43.3  | 1.9%   | -9.0%  | 23.1%   | 57%  |
| Accipitridae      | Hawks              | 16 | 5.5   | 5.0   | 6.0   | 78.9%  | 71.8%  | 86.4%   | 19%  |
| Bombycillidae     | Waxwings           | 2  | 8.0   | 2.1   | 14.6  | 13.8%  | 3.6%   | 25.0%   | 50%  |
| Cathartidae       | New World Vultures | 2  | 9.4   | 8.3   | 10.6  | 265.3% | 238.7% | 293.6%  | 0%   |
| Troglodytidae     | Wrens              | 10 | 13.3  | 6.5   | 20.7  | 13.8%  | 6.8%   | 21.5%   | 40%  |
| Picidae           | Woodpeckers        | 21 | 13.6  | 10.2  | 17.2  | 18.5%  | 13.9%  | 23.4%   | 33%  |
| Sittidae          | Nuthatches         | 4  | 14.4  | 11.0  | 18.4  | 66.6%  | 50.5%  | 85.0%   | 50%  |
| Phasianidae       | Grouse and Allies  | 12 | 15.2  | 2.9   | 36.6  | 24.3%  | 4.5%   | 56.4%   | 33%  |
| Polioptilidae     | Gnatcatchers       | 2  | 31.9  | 12.7  | 54.5  | 15.6%  | 6.2%   | 26.3%   | 0%   |
| Anatidae          | Waterfowl          | 42 | 34.8  | 24.5  | 48.3  | 56.1%  | 37.9%  | 79.5%   | 43%  |
| Vireonidae        | Vireos             | 12 | 89.9  | 78.6  | 102.1 | 53.6%  | 46.7%  | 60.7%   | 17%  |

100. D. W. Winkler, S. M. Billerman, I. J. Lovette, *Bird families of the World: An Invitation to the Spectacular Diversity of Birds* (Lynx Edicions, 2015).