S5 Supplementary Tables

Table S1: **Platypus samples sequenced.** The samples in blue are in the unrelated set used for the population genetic analyses (see Methods). The final column indicates how the samples were divided into five groups, and in parentheses, into four more general groups, on the basis of the PCA results. Individuals indicated by N/A were excluded from these groups because there were insufficient samples from that cluster on the PCA shown in Figure 2. NQLD: North Queensland; NNSW: North New South Wales; CNSW: Central New South Wales; TAS: Tasmania.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Sample** | **Voucher ID** | **Sex** | **Sampling Location** | **Group (larger group)** |
| N701  N702 N703 N704 N748 N749 N750 | APlat  BPlat CPlat DPlat PLT035 PLT037 PLT080 | M  M F F M F F | Dirran Creek | NQLD (NQLD) |
| N711 | PLT010 | M | Rifle Creek, Julatten |
| N751 | PLT033 | F | Barron River |
| N745 | PLT032 | F | Running River | N/A (N/A) |
| N746  N747 | PLT068  PLT069 | F  M | Broken River | N/A (N/A) |
| N753 | PLT059 | F | Carnarvon Creek | N/A (N/A) |
| N730 | MA428 | M | Gwydir River | N/A (NNSW) |
| N707  N713 N714 N715 N716 N717 N718 N719 N720 N721 N722 N723 N724 N725 | GPlat P⇢2002#1 P⇢2002#2 P⇢2003 P⇢2006 P⇢2008#1 P⇡2008#1 P⇡2008#2 P⇢2009#1 P⇢2009#2 P⇡2009#1 P⇢2012#1 P⇢2012#2  Glennie | M  M M M M M F F M M F M M F | Barnard River | Barnard (NNSW) |
| N735  N736 | Abby  Eve | M  F | Fish River (Taronga Zoo) | Wingecarribee (CNSW) |
| N732  N733 N744 N759 | MJ468  Eve FA624 FJ626 | F  M F F | Wingecarribee River |
| N712  N726 N727 N728 N729 | FA556 (SHN42)  FA696 FA531 MA460 MJ380 | F  F F M M |  |  |

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Table S1 Continued

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Sample** | **Voucher ID** | **Sex** | **Sampling Location** | **Group (larger group)** |
| N731  N734 N737 N738 N739 N740 N741 N742 N743 N752 N757 N760 N761 | MA482  FA513 FA462 MJ402 MJ403 FA667 FA547 FA557 FJ537 MA398 MJ379 FA549 MA393 | M  F F M M F F F F M M F M |  |  |
| N705  N710 N754 N755 N756 N758 | EPlat  P29 P150 P114 113 P158 | M  M M M F M | Launceston  Mangalore South Esk River Brumby’s Creek Brumby’s Lake  Upper Derwent River | TAS (TAS) |

Table S2: **Sequencing coverage and read span by sample.** The coverage is calculated using all mapped reads with MAPQ *>* 0. The read span is the total distance between the leftmost and rightmost mapping position of the reads in a pair (i.e. twice the read length, plus the distance between the two reads.)

|  |  |  |  |
| --- | --- | --- | --- |
| **Sample** | **Tranche** | **Mean coverage** | **Mean read span (bp)** |
| N701 | 1 | 18.0 | 224.2 |
| N702 | 1 | 20.7 | 257.1 |
| N703 | 1 | 17.1 | 295.6 |
| N704 | 1 | 21.0 | 250.6 |
| N705 | 1 | 18.6 | 272.3 |
| N707 | 1 | 19.9 | 285.4 |
| N710 | 2 | 19.4 | 361.5 |
| N711 | 2 | 19.0 | 300.8 |
| N712 | 2 | 18.1 | 347.7 |
| N713 | 3 | 14.3 | 367.0 |
| N714 | 3 | 13.6 | 358.8 |
| N715 | 3 | 14.9 | 368.5 |
| N716 | 3 | 13.3 | 371.7 |
| N717 | 3 | 15.7 | 376.9 |
| N718 | 3 | 15.7 | 379.4 |
| N719 | 3 | 16.2 | 375.4 |
| N720 | 3 | 18.1 | 360.8 |
| N721 | 3 | 17.9 | 367.3 |
| N722 | 3 | 14.8 | 367.0 |
| N723 | 3 | 18.1 | 359.5 |
| N724 | 3 | 16.1 | 363.7 |
| N725 | 3 | 16.8 | 368.8 |
| N726 | 4 | 14.0 | 339.5 |
| N727 | 4 | 15.5 | 353.9 |
| N728 | 4 | 16.2 | 352.8 |
| N729 | 4 | 16.2 | 375.8 |
| N730 | 4 | 16.3 | 354.3 |
| N731 | 4 | 15.5 | 363.9 |
| N732 | 4 | 14.1 | 373.8 |
| N733 | 4 | 14.3 | 363.4 |
| N734 | 4 | 12.7 | 394.5 |
| N735 | 4 | 15.1 | 370.2 |
| N736 | 4 | 13.7 | 369.1 |
| N737 | 4 | 14.7 | 351.7 |
| N738 | 4 | 16.5 | 350.1 |
| N739 | 4 | 14.2 | 359.7 |
| N740 | 4 | 14.3 | 349.2 |
| N741 | 4 | 12.7 | 381.5 |
| N742 | 4 | 16.2 | 324.5 |
| N743 | 4 | 19.8 | 376.2 |
| N744 | 4 | 19.9 | 359.0 |
| N745 | 4 | 16.9 | 363.8 |
| N746 | 4 | 16.7 | 343.3 |
| N747 | 4 | 17.7 | 376.7 |
| N748 | 4 | 17.8 | 349.5 |
| N749 | 4 | 15.5 | 355.7 |
| N750 | 4 | 16.6 | 358.9 |
| N751 | 4 | 13.7 | 363.4 |

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Table S2 Continued

|  |  |  |  |
| --- | --- | --- | --- |
| **Sample** | **Tranche** | **Mean coverage** | **Mean read span (bp)** |
| N752 | 4 | 13.5 | 382.8 |
| N753 | 4 | 15.9 | 337.6 |
| N754 | 4 | 15.7 | 353.3 |
| N755 | 4 | 15.5 | 352.3 |
| N756 | 4 | 14.3 | 356.1 |
| N757 | 4 | 19.9 | 355.3 |
| N758 | 4 | 15.5 | 352.1 |
| N759 | 4 | 14.5 | 346.9 |
| N760 | 4 | 14.3 | 361.2 |
| N761 | 4 | 16.2 | 366.9 |

Table S4: **Related samples identified with KING.**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | | | | **location** |
| N735 | N736 | 1st degree - siblings | 0.257 | CNSW |
| N712 | N727 | 1st degree - siblings | 0.258 | CNSW |
| N742 | N757 | 1st degree - siblings | 0.261 | CNSW |
| N712 | N742 | 1st degree - parent and child | 0.248 | CNSW |
| N752 | N757 | 1st degree - parent and child | 0.255 | CNSW |
| N742 | N752 | 1st degree - parent and child | 0.254 | CNSW |
| N712 | N757 | 1st degree - parent and child | 0.251 | CNSW |
| N702 | N749 | 2nd degree | 0.091 | NQLD |
| N755 | N756 | 2nd degree | 0.134 | TAS |
| N738 | N741 | 2nd degree | 0.097 | CNSW |
| N727 | N734 | 2nd degree | 0.110 | CNSW |
| N727 | N742 | 2nd degree | 0.116 | CNSW |
| N727 | N757 | 2nd degree | 0.131 | CNSW |
| N715 | N721 | 2nd degree | 0.140 | NNSW |
| N712 | N734 | 2nd degree | 0.129 | CNSW |
| N749 | N750 | 3rd degree | 0.071 | NQLD |
| N740 | N760 | 3rd degree | 0.057 | CNSW |
| N734 | N742 | 3rd degree | 0.071 | CNSW |
| N734 | N757 | 3rd degree | 0.058 | CNSW |
| N733 | N744 | 3rd degree | 0.069 | CNSW |
| N732 | N733 | 3rd degree | 0.081 | CNSW |
| N732 | N744 | 3rd degree | 0.071 | CNSW |
| N729 | N760 | 3rd degree | 0.085 | CNSW |
| N721 | N725 | 3rd degree | 0.073 | NNSW |
| N719 | N722 | 3rd degree | 0.047 | NNSW |
| N713 | N714 | 3rd degree | 0.055 | NNSW |

**ID 1 ID 2 Relationship Kinship Sampling**