**Table 1.** Summary of the 12 covariates used for modelling the establishment of alien fishes in 139 drainages in Australia. Summary statistics are of the covariate values before they were standardised for analysis. Note that the 144? drainages were the same for both pre-1970 and post-1970 periods, whereas the pool of alien fish species changed. We provide summary statistics for both pre-1970 and post-1970 for all the species-specific and species by drainages covariates.

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| **Covariate** | **Type of covariate** | **Definition** | **Mean ± standard deviation (minimum-maximum)** |
| Area | Geographical: drainage-specific | Area of the drainage, km2 | 28460.30 ± 77970.61 (153.70-699162.00) |
| Human Footpring Index  (HFI) | Environmental: drainage-specific | Median human footpring index across the drainage | 18.38 ± 11.28 (0.00-75.00) |
| Flow length | Geographical: drainage-specific | Median number of upstream drainage 1-km2 cells across the drainage | 13.13 ± 5.11 (4.00-36.00) |
| Flow accumulation | Geographical: drainage-specific | Median total number of upstream drainage 1-km2 cells across the drainage | 120.91 ± 41.75 (41.00-334.00) |
| Upstream slope | Geographical: drainage-specific | Median average slope across the drainage | 192.00 ± 166.96 (7.00-681.50) |
| Upstream elevation | Geographical: drainage-specific | Median average elevation across the drainage | 259.00 ± 204.22 (47.00-1043.00) |
| Minimum Thermal Safety Margin | Physiological niche: species by drainage | Difference between the minimum temperature tolerated by the fish species and the median minimum temperature in July across the drainage | Pre-1970: -14.32 ± 5.26 (-27.40-0.95)  Post-1970: -9.63 ± 7.27 (-27.40-8.65) |
| Maximum Thermal Safety Margin | Physiological niche: species by drainage | Difference between the maximum temperature tolerated by the fish species and the median maximum temperature in January across the drainage | Pre-1970: 19.21 ± 7.05 (-1.10-36.70)  Post-1970: 16.87 ± 7.11 (-9.10-34.10) |
| Body length | Fish characteristic: species-specific | Body length of the fish species, cm | Pre-1970: 69.01 ± 46.77 (6.00-150.00)  Post-1970: 43.17 ± 45.03 (4.00-150.00) |
| Trophic level | Life-history trait: species-specific | Trophic level of the fish species: the position of the fish species in the food chain (full definition and details: <http://www.fishbase.org/glossary/Glossary.php?q=trophic+level>) | Pre-1970: 3.38 ± 0.68 (2.00-4.50)  Post-1970: 3.20 ± 0.63 (2.00-4.50) |
| Resilience | Life-history trait: species-specific | Average population doubling time | Pre-1970: 1.59 ± 0.81 (1.30-4.50)  Post-1970: 1.44 ± 0.55 (1.20-4.50) |
| Fecundity | Life-history trait: species-specific | Maximum total number of eggs spawned per female per brood | Pre-1970: 272117.14 ± 5376342.30  (90.00-2000000.00)  Post-1970: 112109.38 ± 378824.96 (35.00-2000000.00) |