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# Early generation hybrids may drive range expansion of two invasive fishes DataSet

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## Early generation hybrids may drive range expansion of two invasive fishes dataset

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### List of files and description of column headings

1. Ranges.csv - Mean annual range for individual bigheaded carps
  - a. Group – SC = Silver Carp, AGSC = Advanced generation Silver Carp hybrids, EG = Early generation hybrids, AGBC = Advanced generation Bighead Carp hybrids, BG = Bighead Carp
  - b. ID – Identity of individual fishes
  - c. Range km – Mean annual length of river used by individual fish (km)
  - d. Quantile – Indication of groupings for analysis, 1 = least mobile individuals, 4 = most mobile, analyses not conducted on EG (X)
2. MovementMain.csv – Net and total distances of each observed movement as well as whether a fish was deemed to have moved or remained stationary.
  - a. Group – SC = Silver Carp, AGSC = Advanced generation Silver Carp hybrids, EG = Early generation hybrids, AGBC = Advanced generation Bighead Carp hybrids, BG = Bighead Carp
  - b. month
  - c. year
  - d. id – Identity of individual fishes
  - e. netdist – Net distance moved (km), upstream values were positive and downstream values were negative
  - f. totalddist – Total distance moved (km)
  - g. tl – Estimated total length of fish at time of movement (mm)

- h. moverate – Rate of movement (km/day)
  - i. movenomove – Indicator of whether a fish moved (1) or remained stationary (0)
  - j. change24TempA – Change in temperature over 24 hours preceding movement (°C)
  - k. changewkTempA – Change in temperature of week preceding movement (°C)
  - l. DTempA – Average temperature on day of movement (°C)
  - m. DDisA – Average discharge on day of movement (m<sup>3</sup>/sec)
  - n. WkDisA – Change in discharge over week preceding movement (m<sup>3</sup>/sec)
  - o. C24DisA – Change in discharge over 24 hr preceding movement (m<sup>3</sup>/sec)
3. IndividualFishData.csv – Basic information about each fish
- a. Date – Date fish was tagged and fin clip was collected
  - b. Year – Year of tagging
  - c. Reach – River pool fish was collected and tagged in
  - d. a' (SV) – Proportion of alleles tested which were silver carp. Used to groups hybrids/parental species as described in text. A zero value indicates a bighead carp while a one indicates a silver carp. Values in between zero and one represent varying degrees of hybrids.
  - e. TL – Total length of the fish at time of tagging (mm)
  - f. Weight – Weight of fish at time of tagging (g)
  - g. Sex – Sex of fish if observed during tagging, F = female, M = male, UNK = unknown sex