

**ROBINSON, ANTHONY T., R.W. CLARKSON, AND R.E. FORREST. 1998.
DISPERSAL OF LARVAL FISHES IN A REGULATED RIVER TRIBUTARY.
TRANSACTIONS OF THE AMERICAN FISHERIES SOCIETY 127:722-786,**

RESULTS

- Humpback chub, speckled dace, bluehead sucker, and flannelmouth sucker spawn throughout most of the Little Colorado River below Chute Falls (14.2 km) based on the distributions of protolarvae and mesolarvae during 1991-1993.
- All four native species spawn primarily during March – June. All four species can spawn sporadically at low levels throughout the year.
- Disappearance of larvae in the LCR following the May-June flood of 1992 suggests that most larvae were transported out of the river and may have been killed by this flood.
- During a 46-d period in 1993 we estimated that over 370,000 native fish larvae drifted out of the Little Colorado River into the mainstem Colorado River.

CONCLUSIONS

- Regulated discharge from Glen Canyon Dam has all but eliminated spring-summer ponding of tributary mouths that occurred when ascending flows in the Colorado River coincided with descending and base flows in tributaries; thus drifting larvae pass directly into the Colorado River.
- Survival of larvae now transported into the Colorado River is probably poor because of perennially cold water temperatures and instability of nearshore habitats.

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