

Humpback Chub, *Gila cypha*
Captive Breeding/Refugia
Feasibility Proposal

USFWS



A PROPOSAL TO INVESTIGATE THE FEASIBILITY OF DEVELOPING A PROGRAM TO AUGMENT THE POPULATION OF HUMPBACK CHUB (*Gila cypha*) IN GRAND CANYON

- **FEASIBILITY OF ESTABLISHING A SUPPLEMENTAL STOCKING PROGRAM USING WILD CAUGHT YOUNG OF YEAR FISH**
- **FEASIBILITY OF ESTABLISHING A SUPPLEMENTAL STOCKING PROGRAM USING HATCHERY PRODUCED FISH FROM A CAPTIVE BROODSTOCK**
- **FEASIBILITY OF ESTABLISHING A SECOND POPULATION IN TRIBUTARIES OF GRAND CANYON OR EXPANDING THE LITTLE COLORADO RIVER POPULATION**



FEASIBILITY OF DEVELOPING A PROGRAM TO AUGMENT THE POPULATION OF HUMPBAC CHUB continued.....

- FEASIBILITY OF ESTABLISHING A SUPPLEMENTAL STOCKING PROGRAM USING WILD CAUGHT YOUNG OF YEAR FISH
 - Where could the supplemental fish be grown?
 - What size fish should be collected, how, from where, and when?
 - What is the best size to grow out captive fish before release?
 - How many fish will need to be released into the wild in order sufficiently supplement the population of humpback chub in Grand Canyon?
 - Where and when will fish be released back into the wild?



FEASIBILITY OF DEVELOPING A PROGRAM TO AUGMENT THE POPULATION OF HUMPBACK CHUB continued.....

- FEASIBILITY OF ESTABLISHING A SUPPLEMENTAL STOCKING PROGRAM USING HATCHERY PRODUCED FISH FROM A CAPTIVE BROODSTOCK
 - Is a captive adult broodstock needed at this point in time, and what will it contribute?
 - Identification of components necessary to develop a broodstock management plan.
 - Where to hold broodstock, where to raise fish, what size to raise fish, how many, where/when to release?

FEASIBILITY OF DEVELOPING A PROGRAM TO AUGMENT THE POPULATION OF HUMPBACK CHUB continued.....

- **FEASIBILITY OF ESTABLISHING A SECOND
POPULATION IN TRIBUTARIES OF GRAND
CANYON OR EXPANDING THE LITTLE
COLORADO RIVER POPULATION**

FEASIBILITY OF DEVELOPING A PROGRAM TO AUGMENT THE POPULATION OF HUMPBACK CHUB continued.....

- **Schedule:**

- Feb-Apr 2002 : Produce Draft Feasibility Study
- 25 April 2002 : Submit Draft Feasibility Study to GCMRC
- June 2002 : Submit Final Feasibility Study to GCMRC

- **Budget Total** **\$22,200**