

## Work Task C46: Physiological Response in BONY and RASU to Transport Stress

FY10 Estimates	FY10 Actual	Cumulative Accomplishment Through FY10	FY11 Approved Estimate	FY12 Proposed Estimate	FY13 Proposed Estimate	FY14 Proposed Estimate
\$0	\$0	\$0.00	\$120,000	\$120,000	\$70,000	\$0

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**Start Date:** FY11

**Expected Duration:** FY13

**Long-term Goal:** To maintain effective fish augmentation program.

**Conservation Measures:** BONY3, BONY4, BONY5, RASU3, RASU4, and RASU6.

**Location:** Dexter NFH.

**Purpose:** Characterize the physiological stress response of BONY and RASU during pond harvest, tagging, and before, during, and after transport, discern levels of recovery and post hauling mortality to develop an effective transport protocol.

**Connections with Other Work Tasks (past and future):** This work is related to Dexter National Fish Hatchery (B4), Razorback Sucker Rearing Studies (C10) and Bonytail Rearing Studies (C11).

**Project Description:** This three year study will characterize the physiological stress response of BONY and RASU before, during, and after a 12 hour transport. Results will be used to develop and test revised hauling procedures to minimize such stress.

**Previous Activities:** This effort is building upon research conducted under Razorback Sucker Rearing Studies (C10) and Bonytail Rearing Studies (C11).

**FY10 Accomplishments:** New start in FY11.

**FY11 Activities:** The first year of the study will measure and record levels of blood plasma cortisol, glucose, osmolality, and chloride levels in BONY before, during, and after a 12-hour transportation before returning to Dexter NFH. BONY are to be netted from the truck and held in 500-liter circular tanks for three weeks to monitor for disease and mortality.

**Proposed FY12 Activities:** The second year of the study will measure and record levels of blood plasma cortisol, glucose, osmolality, and chloride levels in RASU before,

during, and after a 12 hour transportation before returning to Dexter NFH. BONY are to be netted from the truck and held in 500-liter circular tanks for three weeks to monitor for disease and mortality.

**Pertinent Reports:** The scope of work is available upon request.