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Recently the USFWS listed two crayfishes, *Cambarus callainus* and *Cambarus veteranus* as threatened and endangered respectively. As part of the listing process, recovery of both species is now of paramount importance if the obligations of the ESA are to be met. Crayfish propagation under human care has been promoted as a critical action needed for the recovery of both species. While several aquaculture techniques have been developed for lentic living *Procambarus* species, methodologies specific to lentic living *Cambarus* species do not exist. We sought to begin the process of developing a captive rearing protocol for endangered *Cambarus* crayfishes by investigating forage type and its impact on growth. *Cambarus chasmodactylus*, an ecological equivalent for both imperiled crayfishes was used as a surrogate taxon. Oviparous females were collected from the wild, and juveniles raised individually in PVC domiciles at the National Fish Hatchery at White Sulphur Springs West Virginia and fed commercial trout chow or blood worms, with growth tracked overtime via photographic measurements. Initial results indicate survival potential was high, and growth was strongly correlated with bloodworm diet over trout chow.