

EVALUATION OF A NEW TECHNIQUE FOR MARKING ANURANS

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Abstract: Amphibians can be very difficult to mark because of their extraordinary powers of regeneration. Although many amphibian marking techniques have been developed, few meet the rigorous assumptions of capture-mark-recapture models. Also, excessive toe-clipping may affect frog survivorship adversely. We tested the efficacy of a new hybrid marking technique (VIE-C) that combines Visible Implant Elastomer (VIE) and toe-clipping on four species of treefrogs in West-Central Florida. Of the 840 treefrogs recaptured over a 15-month period, only one mark was unreadable. A significantly higher percentage of VIE marks (80%) than toe-clips (55%) remained viable for the duration of the study. On average, toe-clips remained readable for 100 days, and VIE marks remained readable for 112 days. There were no significant species differences in the length of time that either type of mark lasted. The hybrid VIE-C method represents an improvement over either method used alone, but the VIE mark will be more helpful in correctly reading and clarifying toe-clipping errors than will toe-clips be helpful in reading and clarifying VIE marks.