DETERMINATION OF BANK ROCKFISH AGE AND GROWTH: A COMPARISON OF TRADITIONAL AND COMPUTER-AIDED TECHNIQUES

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Aaron Everet King

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ABSTRACT

DETERMINATION OF BANK ROCKFISH AGE AND GROWTH: A COMPARISON OF TRADITIONAL AND COMPUTER-AIDED TECHNIQUES

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This study was performed to determine the variation and reliability among and between traditional methods of otolith ageing, and a new computer-aided technique designed for this project using the rockfish, Sebastes rufus. As expected, break & burn and thin-sectioning traditional ageing methods produced the greatest similarity and counts, the traditional ageing method using whole otoliths produced the fewest counts. The generated von Bertalanffy growth curve indicated a slower growth rate than previous studies. This study also indicated a faster growth rate for females than males. The computer-aided method tended to undercount the number of bands when compared to a manual count. The computer-aided method was also markedly faster in producing multiple counts and produced less variability between counts. However, since the computer-aided method required thin-sectioning of otoliths, the overall time to produce counts was greater for the computer-aided method than traditional methods.

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