

石門水庫集水區湳仔溝溪之溪流整治對台灣馬口魚密度差異比較

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摘要

Nanzaigou stream locate at the tributaries of Shihmen Reservoir has been influenced by the flood for many years, so that the renovating of the streams by ecological engineering methods was introduced from 2004 to December of 2006. This study is aim to explore the alternations of *Candidia barbatus* for the comparison of the density before, during and after construction at each of the site along Nanzaigou Stream. The natural ecological engineering was started from March 2003 to December 2006, the data was collected by electrofishing from Baiji NO.4 Bridge, Nanzihgou NO.2 Bridge, Longxing Bridge, Fengyi Bridge, Sinfu Canal and Huaide Bridge from November 2003 to May 2008. The collected data was used to compare in number of species, the total average quantity, diversity index and the mean values of dominant species densities. The results are reveals that the diversity was low and the possible supposition is the appearance of the dominant species at each of the site before constructing. First issue construct in addition with the typhoon influence, the total average quantity of fish was declined, and the downward trends in Fengyi Bridge and Sinfu Canal were the most. The second phase of construction, the total average quantity of each site had the tendency to restore and the impact to Lake candidus at Nanzihgou NO.2 Bridge and Longxing Bridge have reduced gradually. After construction, the total number at all the site did not alter much, excluded Longxing Bridge which may impute to the appearance of the fish gate was increased in number, and the densities at Fengyi Bridge, Sinfu Canal and Nanzihgou NO.2 Bridge were declined. The construction and typhoon may exert a tremendous influence to fishes totals numbers and the density of Lake candidus dace. Although there is trend resumed after constructing, but two or three years after constructing, perhaps the fish community has already changed, the total number of fish and the density of Lake candidus dace drops instead.

關鍵字：Shihmen Reservoir, Nanzaigou Stream, *Candidia barbatus*, density.