

## **PERBANDINGAN PENGUKURAN JARAK EUCLIDEAN DAN MANHATTAN PADA CONTENT BASED IMAGE RETRIEVAL (CBIR) UNTUK KLASIFIKASI JENIS ARWANA**

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### **ABSTRAK**

Arwana merupakan jenis ikan air tawar purba yang tersebar di seluruh dunia, mulai dari Afrika, Asia Tenggara, Australia hingga Amerika Selatan. Selain itu ikan arwana menjadi salah satu jenis ikan yang banyak digemari oleh para penggemar ikan hias di dalam maupun luar negeri. Ikan arwana telah mendapat perlindungan tertinggi dari CITES (Convention of International Trade in Endangered Species of Wild Flora and Fauna). Banyaknya jenis ikan arwana dan masih sulitnya untuk mengenali setiap jenis ikan arwana, maka diperlukan sebuah penelitian untuk membantu mengenali. Sementara penelitian pada bidang Image Retrieval sangat berkembang dalam beberapa tahun terakhir yaitu Content Based Image Retrieval (CBIR). Dalam CBIR, histogram merupakan representasi warna yang paling umum digunakan. Dan dengan metode Histogram Equalization, teknik ini nantinya akan meratakan histogram citra secara keseluruhan sehingga akan memperbaiki kualitas citra yang juga akan berpengaruh terhadap histogram citra. Kemudian untuk mendapatkan kemiripan atau kecocokan citra uji dengan citra acuan digunakan pengukuran jarak antar histogram citra. Dengan membandingkan pengukuran jarak Euclidean Distance dan Manhattan Distance. Didapatkan nilai akurasi sebesar 76,85 untuk Euclidean Distance dan 70,83 % untuk Manhattan Distance.

**Kata Kunci** : Ikan Arwana, Content Based Image Retrieval (CBIR), Histogram Equalization, Euclidean Distance, Manhattan Distance

## **COMPARISON BETWEEN EUCLIDEAN AND MANHATTAN DISTANCE MEASURE IN CONTENT BASED IMAGE RETRIEVAL (CBIR) FOR CLASSIFICATION OF AROWANA SPECIES**

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### **ABSTRACT**

Arowana is a type of ancient freshwater fish that are scattered around the world, from Africa, Southeast Asia, Australia to South America. Arowana fish besides being one of the many types of fish to be enjoyed by fans of ornamental fish inside and outside the country. Arowana fish has got the highest protection of the CITES (Convention of International Trade in Endangered Species of Wild Flora and Fauna). The large number of different types of fish are arwana and still difficult to identify every type of fish are arwana, then needed a study to help identify. While research on the field of Image Retrieval is highly developed in the last few years i.e. Content Based Image Retrieval (CBIR). In CBIR, histogram is a representation of the color of the most commonly used. And Histogram Equalization (HE) method, this technique will flatten the image histogram as a whole so that it will improve the quality of the image will also have an effect on the image histogram. Then to get the likeness or image of the test match with the reference image used measurements of the distance between the image histogram. By comparing the measurements of distance Euclidean Distance and the Manhattan Distance. Obtained a value of 76.85 for the accuracy of the Euclidean Distance and the Manhattan Distance 70.83%.

**Keyword** : Arowana, Content Based Image Retrieval (CBIR), Histogram Equalization, Euclidean Distance, Manhattan Distance