COLOUR DISCRIMINATION IN MARINE TURTLES

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Background

Colour vision is an ability to perceive **differences between light** composed of different wavelengths.

Turtles are **tetrachromatic**, meaning they have **four cone types**.

Aim

To evaluate if green and hawksbill turtles can discriminate between blue and red.
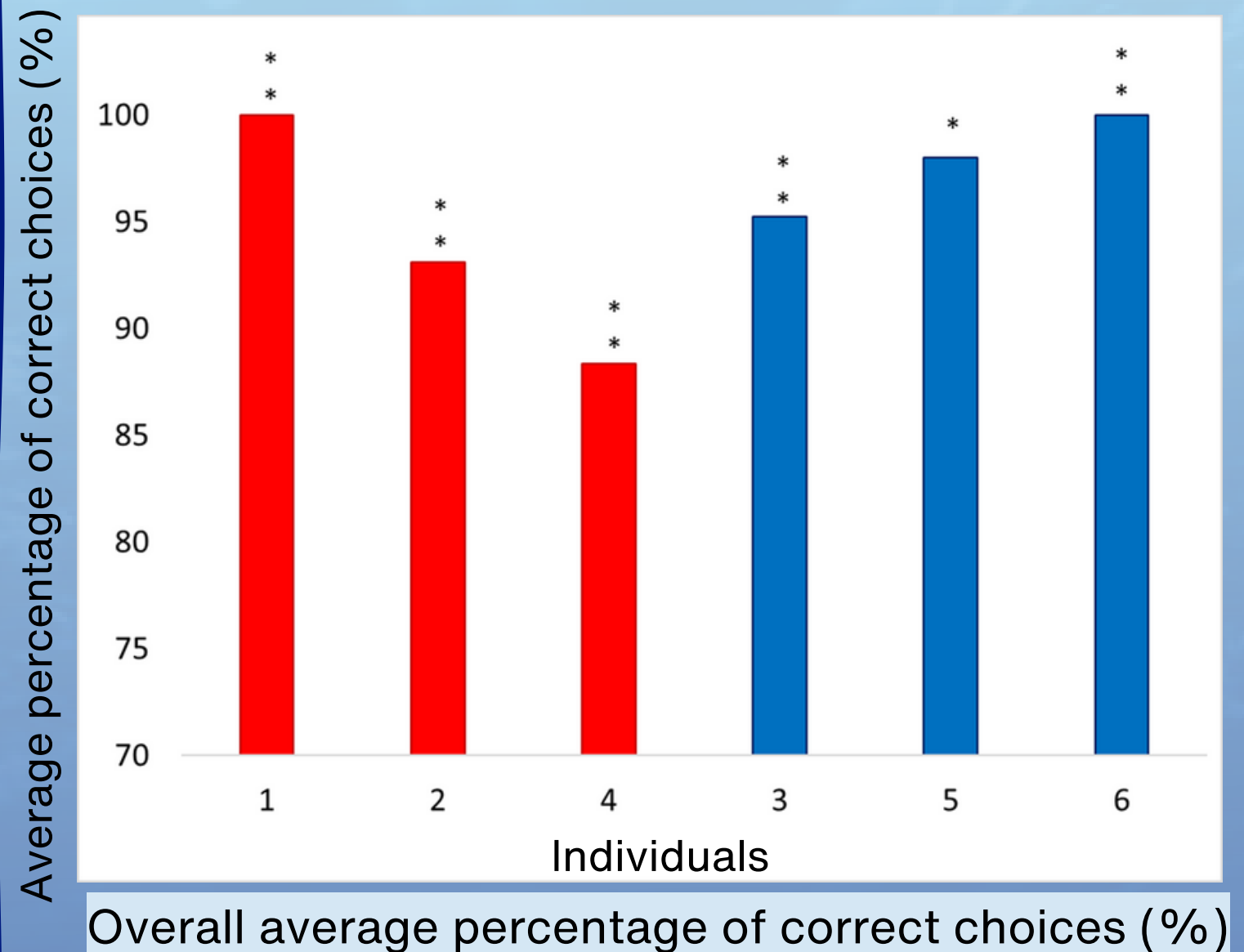
Methods

Five green turtles (*Chelonia mydas*) & **one hawksbill turtle** (*Eretmochelys imbricata*) were used.

The turtles were trained using **positive reinforcement** & choice-based **target training**.

They were **trained to touch either a blue or red target** & when presented with both at the same time, they had to **touch the correct colour**.

Results

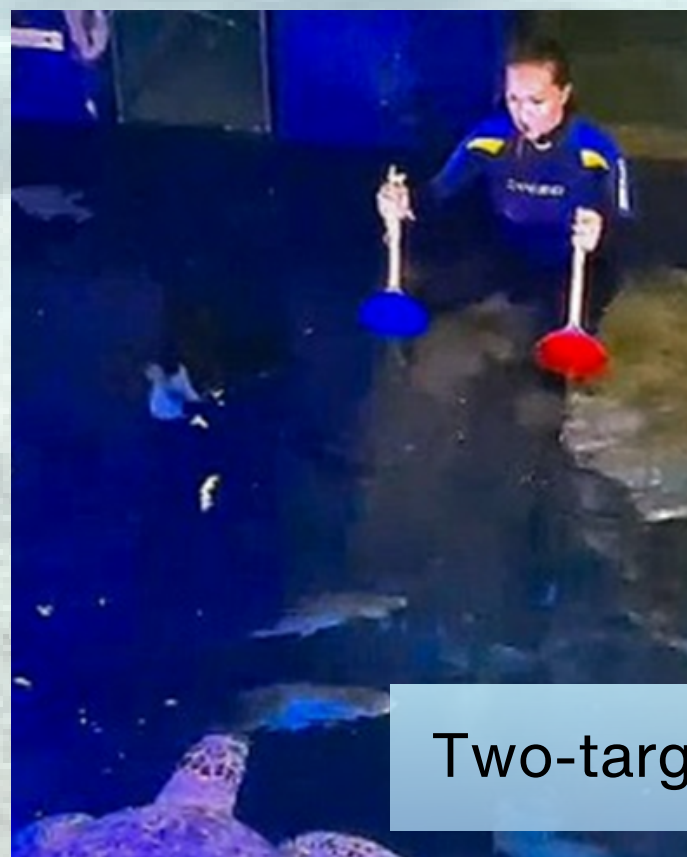**All individuals** could **discriminate** between red and blue.

Overall average percentage of correct choices (%)

No significant difference in performance observed **between the red and blue group**.

Conclusions

Colour discrimination ability has important implications for **conservation efforts** of marine turtles as it could help **reduce mortality** caused by **bycatch** or marine **debris ingestion**.

Targets used during training

Two-target test

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