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Why is bidirectional sex change rare?

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Highlights

- Many coral reef fishes exhibit a transition from one sex to the other only.
- We study a simple dynamic model for hormones controlling sex expression.
- We assume that a social status factor affects the rate of an enzymatic reaction.
- Hormonal dynamics show bistability, causing hysteresis of sex hormonal levels.
- A broad parameter range for bistability may make unidirectional sex change likely.

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