

STUDY OF BIODIVERSITY FRESHWATER



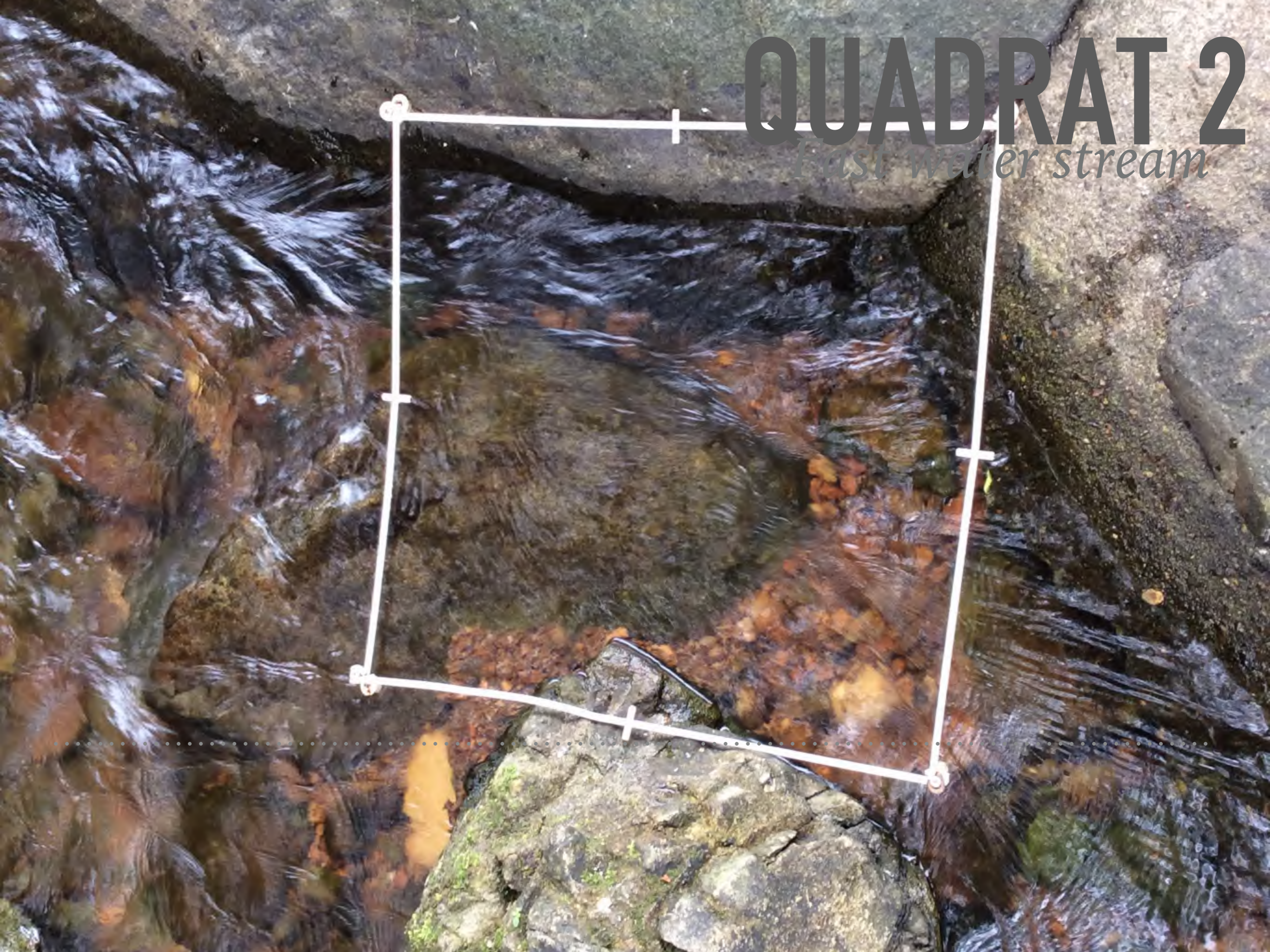
QUADRAT 1

Slow water stream



QUADRAT 2

Fast water stream





ABIOTIC FACTORS

Factors	Quadrat 1	Quadrat 2
Water flow rate (m/s)	0	0.45
Light intensity (Lux)	6000	3400
Air temperature (°C)	24.8	22.7
Water temperature (°C)	21.8	21.8



近阿米熊蛛- 蜉蝣、豆娘若蟲



眼優角蚱- 海南溝螺

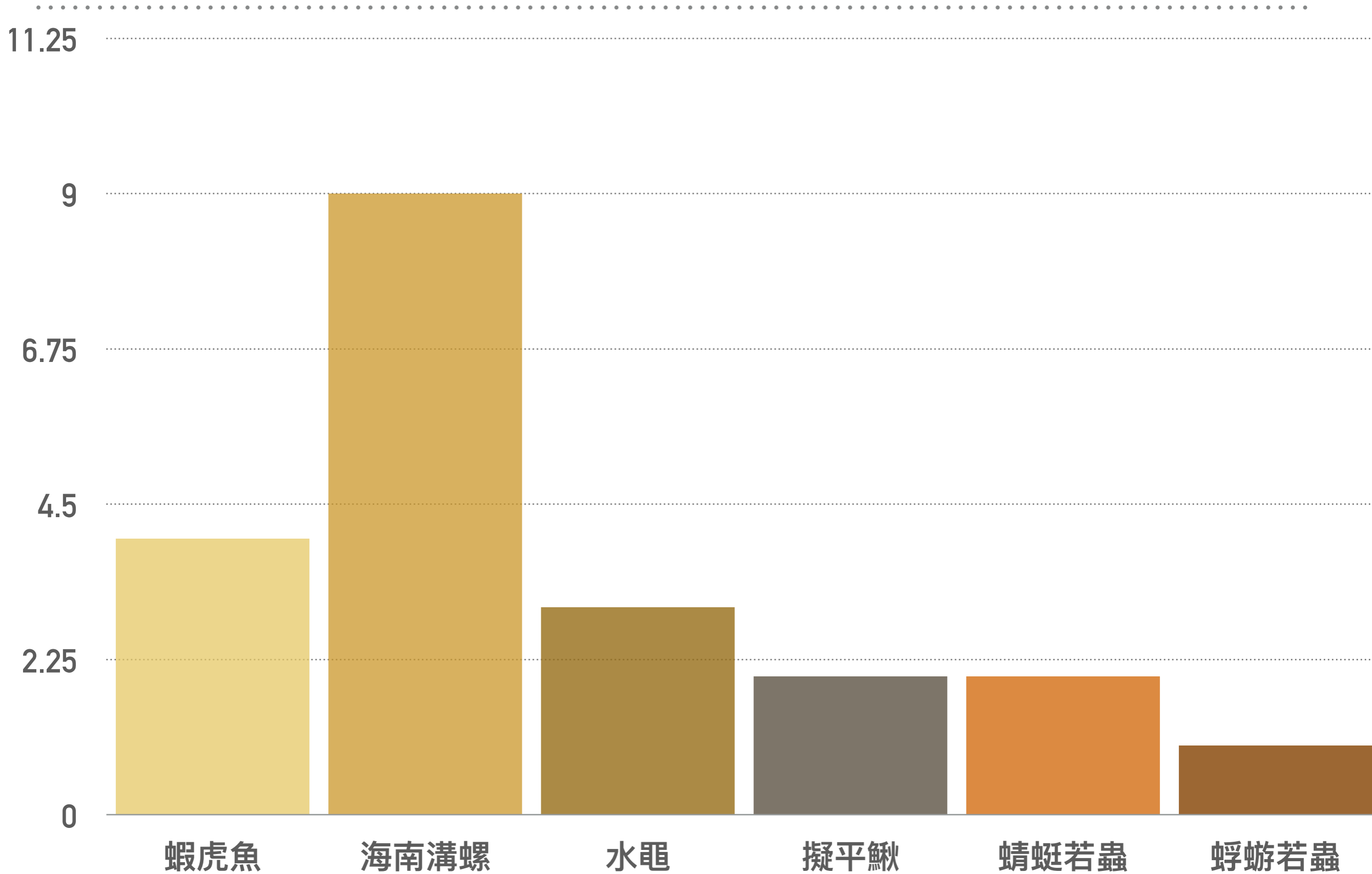


石蛾幼蟲 - 水黽

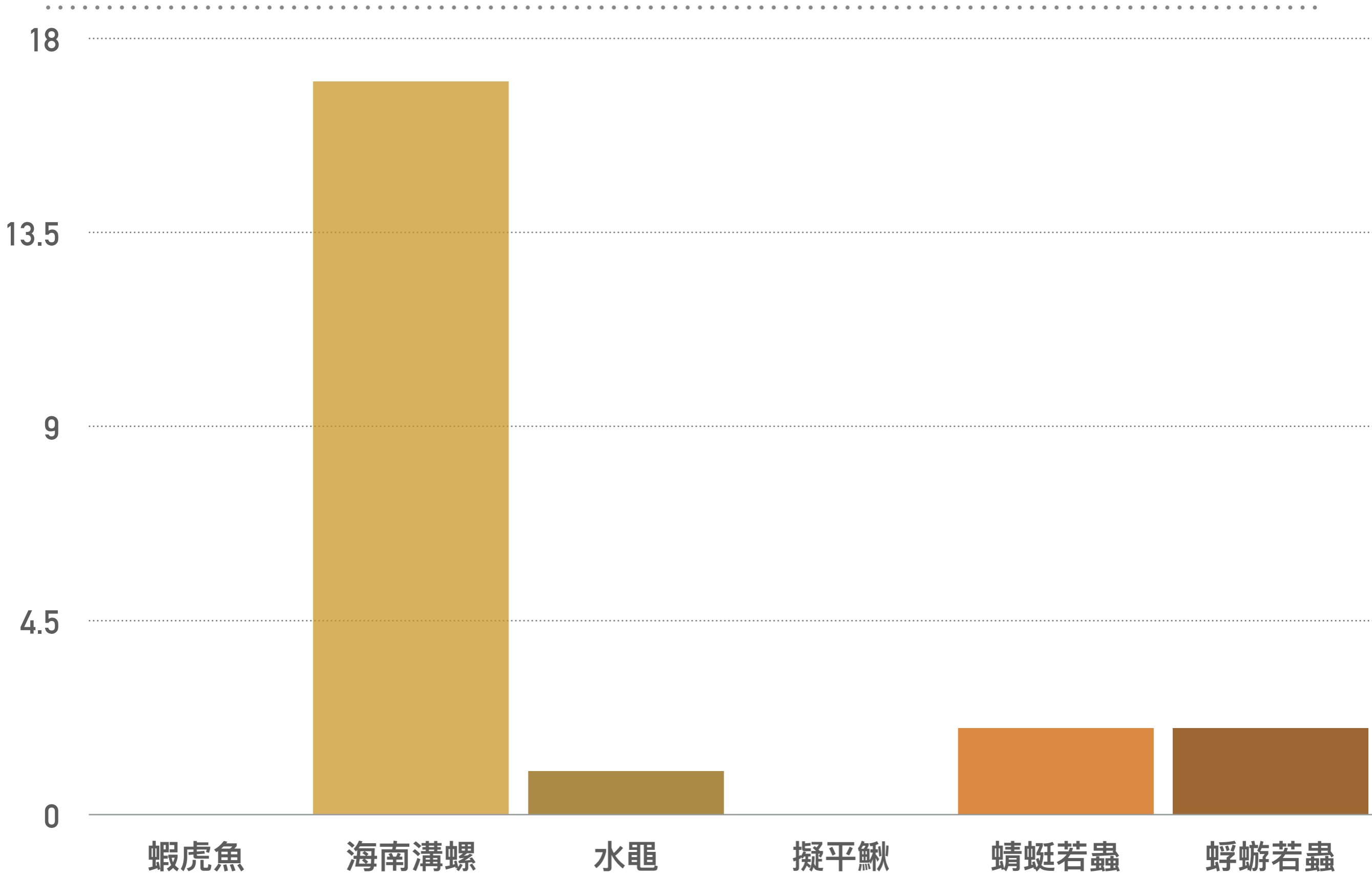


擬平鰵- 香港瘰螈- 溪吻蝦虎魚

QUADRAT 1 - SLOW WATER STREAM



QUADRAT 2 – FAST WATER STREAM



COMPARE

Animals	Quadrat 1	Quadrat 2
蝦虎魚	4	0
海南溝螺	9	17
水龜	3	1
擬平鰻	2	0
蜻蜓若蟲	2	2
蜉蝣若蟲	1	2

ORGANISMS EVENLY DISTRIBUTED?

NO !

Water flow rate - quadrat 1 slow stream is slower - more type and number of species

Quadrat 1 slow stream - more fish

Quadrat 2 fast stream - more mollusc 軟體動物 and insects

ADAPTATION

1. Animals need to use more energy to maintain their position under fast water current

-fish using their fins

- water skater › using their hairy tipped limbs

Animals need to use less energy to maintain their position under fast water current

- snails › with sucker-like structure

- damselfly/ dragonflies nymph › hooked limbs

2. Shells and snails have rigid protective case

- reduce mechanical damage from water current › eg : friction

ADAPTATION

3. *Protective colours*



MICRO-ORGANISM IN ALGAE



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