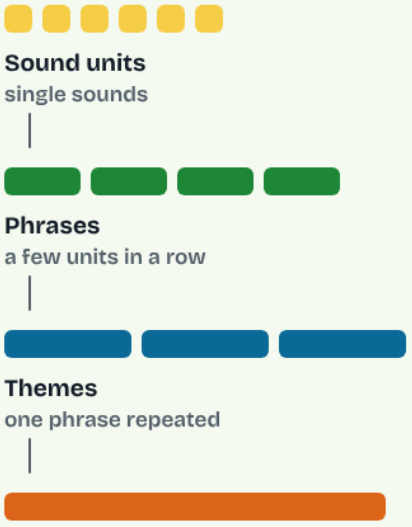
That is why

Why do humpback whales sing?

Only males sing, in the breeding season. Every male copies the newest song, so new songs sweep across the ocean.

A A song is built like music



Sound units
single sounds

Phrases
a few units in a row

Themes
one phrase repeated

The song
themes in a set order, up to 20 minutes

Only males sing the song.
Females make other sounds.

B How a new song travels

South Pacific, from west to east



11 years, 11 song types. A new song took about 2 years to cross. Only one ever moved west. The biggest population, eastern Australia, sets the trend.

C Stand out, fit in

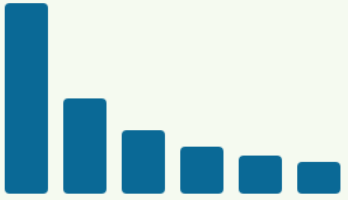
Each male wants to sound a little different from his neighbor, but also feels the pull to fit in.
Nobody knows yet if the song mainly attracts females or warns off rivals.

The voice box



No vocal cords. A U-shaped tissue presses on a cushion of fat and muscle.
Tested on young whales only.

A pattern like language



8 years of song from New Caledonia follow Zipf's law: the top part is about twice as common as the next. It is not a language.

Ships are louder than any whale can sing.

Like a fashion trend: one starts the look, and soon everyone wears it.

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