

# Oysters exposed to winter acidification produced larger larvae in spring, with higher survival 1 year later

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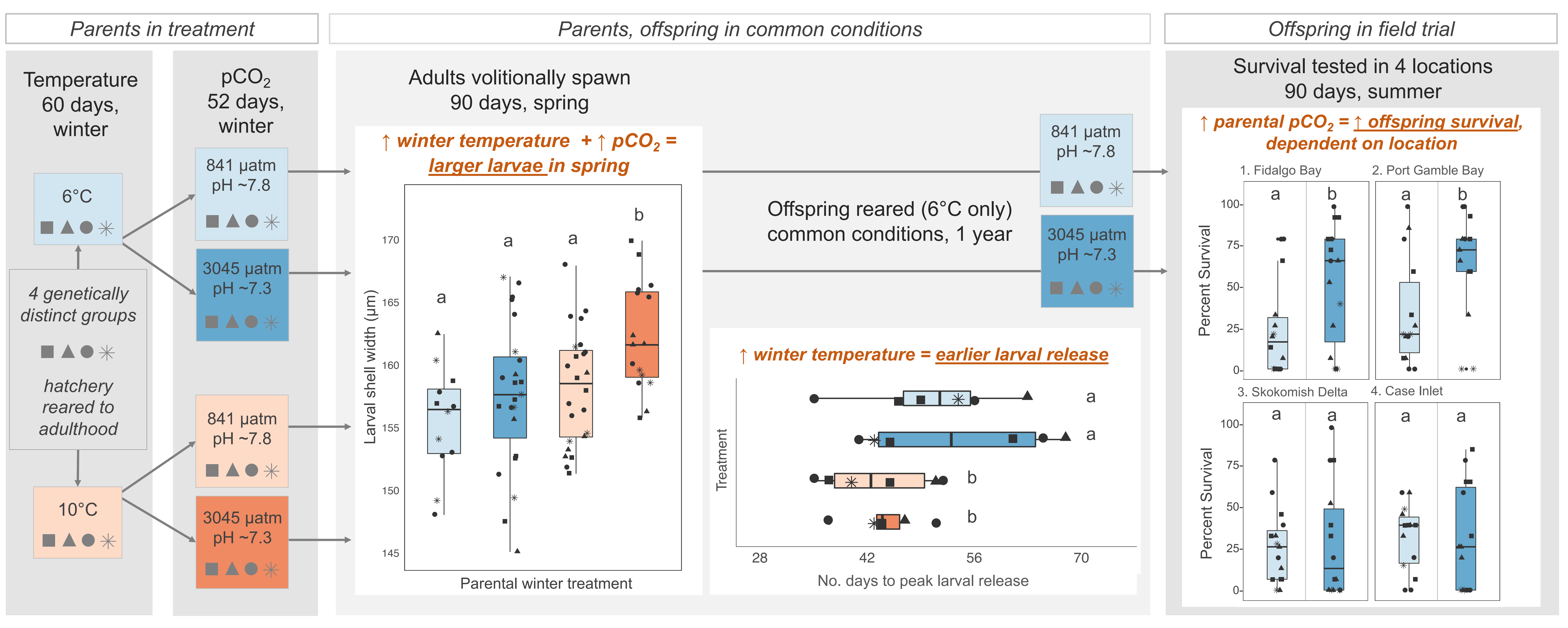
## Carryover effects of temperature and $p\text{CO}_2$ across multiple Olympia oyster populations

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### Olympia oyster, *Ostrea lurida*



- Native to N. American Pacific Coast
- Females brood larvae for ~2 weeks
- Hermaphroditic
- Overexploited; now being restored
- Grown and sold commercially
- Small but mighty tasty



First observations of intergenerational carryover effects in an *Ostrea* species.

Parental exposure to stress may “prime” offspring for stressful environment – a possible adaptation mechanism.

### Olympia oysters

- Could reproduce earlier after warmer winters, e.g. during marine heat wave
- Winter acidification + warming may positively affect offspring – larger larvae (faster growth?), higher surviving juveniles.

**Potential applications** – Don’t buffer seawater or protect wild populations from acidification, adult exposure may be important

