



IMPLICATIONS FOR BIODIVERSITY OF GLOBAL WARMING: 1.5°C vs 2°C

ARCTIC OCEAN

Ice-free summer every **100 years** vs Ice-free summer every **10 years**

Ranges of marine species shifted to **higher altitudes**

Ocean acidification will further impact the growth, development, calcification, survival and thus abundance of a range of species

Limiting warming to **1.5°C** rather than **2°C** would prevent the thawing over centuries of **1.5 M – 2.5 M km** of permafrost

CORAL REEFS

70-90% of decline vs **100%** of decline

ALPINE SPECIES

migrate upwards on mountain slopes due to warming

adaptation to warmer temperatures limited by mountain height and habitability

6% insects vs **18%** insects
8% plants vs **16%** plants
4% vertebrates vs **8%** vertebrates

lose over half of their climatically determined range

Shifts in insect pollinator ranges with unknown implications for biodiversity and ecosystem functioning

Timing of phenological events could change more for primary consumers than higher trophic levels