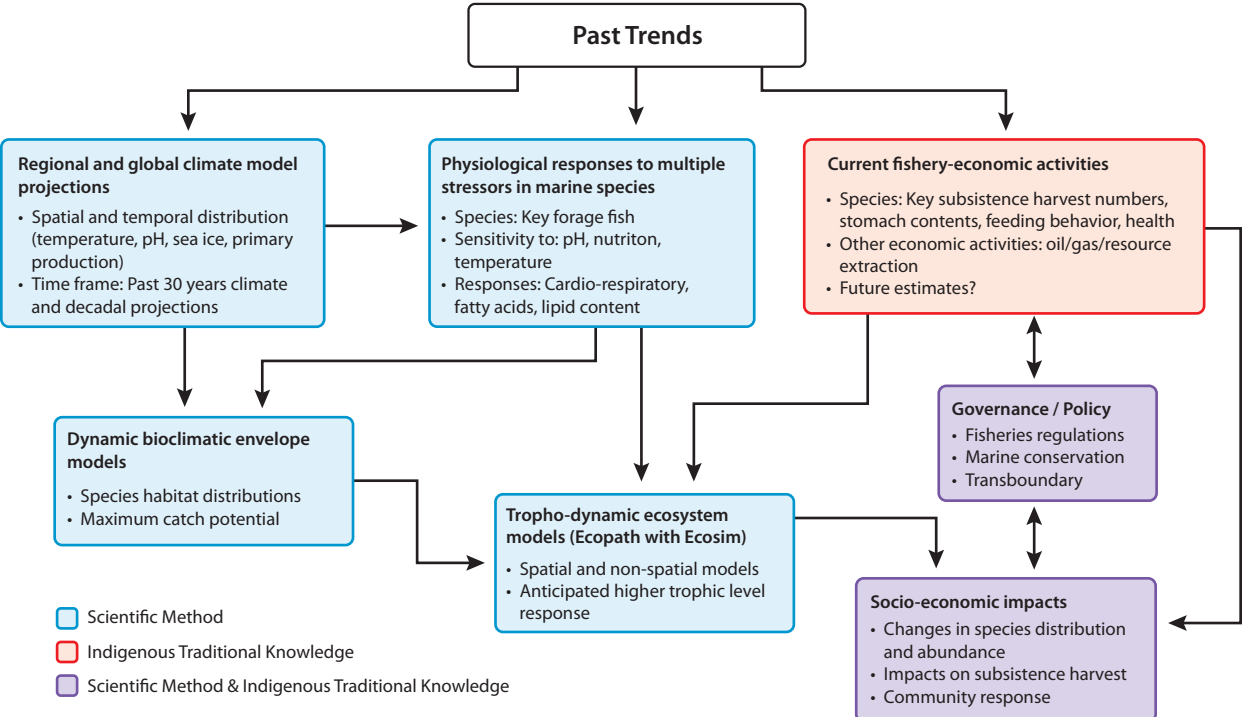
Past Trends
Regional and global climate model projections
• Spatial and temporal distribution (temperature, pH, sea ice, primary production)
• Time frame: Past 30 years climate and decadal projections
Physiological responses to multiple stressors in marine species
• Species: Key forage fish
• Sensitivity to: pH, nutriton, temperature
• Responses: Cardio-respiratory, fatty acids, lipid content
Current fishery-economic activities
• Species: Key subsistence harvest numbers, stomach contents, feeding behavior, health
• Other economic activities: oil/gas/resource extraction
• Future estimates?
Dynamic bioclimatic envelope models
• Species habitat distributions
• Maximum catch potential
Governance / Policy
• Fisheries regulations
• Marine conservation
• Transboundary
Tropho-dynamic ecosystem models (Ecopath with Ecosim)
• Spatial and non-spatial models
• Anticipated higher trophic level response
Socio-economic impacts
• Changes in species distribution and abundance
• Impacts on subsistence harvest
• Community response
Scientific Method
Indigenous Traditional Knowledge
Scientific Method & Indigenous Traditional Knowledge