

Status of the SPECIES stock off the U.S. West Coast in 2025

Kiva L. Oken¹

1. NOAA Fisheries Northwest Fisheries Science Center, 2725 Montlake Boulevard East



U.S. Department of Commerce
National Oceanic and Atmospheric Administration
National Marine Fisheries Service
Northwest Fisheries Science Center

Table of contents

| | | |
|-------|-------------------------------------------------------------|-----|
| 1 | Executive Summary | i |
| 1.1 | Stock | i |
| 1.2 | Catches | i |
| 1.3 | Data and Assessment | i |
| 1.4 | Stock biomass and dynamics | i |
| 1.5 | Recruitment | i |
| 1.6 | Exploitation status | i |
| 1.7 | Ecosystem considerations | i |
| 1.8 | Reference points | i |
| 1.9 | Management performance | i |
| 1.10 | Harvest projections | i |
| 1.11 | Decision table | i |
| 1.12 | Scientific uncertainty | i |
| 1.13 | Research and data needs | i |
| 1.14 | Rebuilding projections | i |
| 2 | Introduction | ii |
| 2.1 | Life History | ii |
| 2.2 | Ecosystem considerations | ii |
| 2.3 | Fishery description | ii |
| 2.4 | Management History | ii |
| 2.5 | Management performance | ii |
| 2.6 | Fisheries off Canada and Alaska | ii |
| 3 | Data | iii |
| 3.1 | Fishery-dependent data | iii |
| 3.1.1 | Landings | iii |
| 3.1.2 | Discards | iii |
| 3.1.3 | Biological data | iii |
| 3.1.4 | Abundance indices | iii |
| 3.2 | Fishery-independent data | iii |
| 3.3 | Biological Parameters | iii |
| 3.3.1 | Natural Mortality | iii |
| 3.3.2 | Weight-at-length | iii |
| 3.3.3 | Maturity | iii |
| 3.3.4 | Fecundity | iii |
| 3.4 | Environmental and ecosystem data | iii |
| 4 | Assessment model | iv |
| 4.1 | History of modeling approaches | iv |
| 4.2 | Responses to SSC Groundfish Subcommittee requests | iv |
| 4.3 | Model Structure and Assumptions | iv |
| 4.3.1 | Model Changes from the Last Assessment | iv |
| 4.3.2 | Modeling Platform and Structure | iv |

| | | |
|-------|-------------------------------------------------------|------|
| 4.3.3 | Model Parameters | iv |
| 4.3.4 | Key Assumptions and Structural Choices | iv |
| 4.4 | Base Model Results | v |
| 4.4.1 | Parameter Estimates | v |
| 4.4.2 | Fits to the Data | v |
| 4.4.3 | Population Trajectory | v |
| 4.5 | Model Diagnostics | vi |
| 4.5.1 | Convergence | vi |
| 4.5.2 | Sensitivity Analyses | vi |
| 4.5.3 | Retrospective Analysis | vi |
| 4.5.4 | Likelihood Profiles | vi |
| 4.6 | Unresolved Problems and Major Uncertainties | vi |
| 5 | Management | vii |
| 5.1 | Reference Points | vii |
| 5.2 | Harvest Projections and Decision Tables | vii |
| 5.3 | Evaluation of Scientific Uncertainty | vii |
| 5.4 | Regional management considerations | vii |
| 5.5 | Research and Data Needs | vii |
| 5.6 | Acknowledgements | viii |
| 5.7 | References | ix |
| 5.8 | Tables | x |
| 5.9 | Figures | xi |
| 5.10 | Notes | xii |
| 5.11 | Appendices | xiii |

List of Figures

List of Tables

Please cite this publication as:

AUTHORS. (2025) Status of SPECIES off the U.S. West Coast in 2025. Pacific Fishery Management Council. [XX] p.

1 Executive Summary

1.1 Stock

1.2 Catches

1.3 Data and Assessment

1.4 Stock biomass and dynamics

1.5 Recruitment

1.6 Exploitation status

1.7 Ecosystem considerations

1.8 Reference points

1.9 Management performance

1.10 Harvest projections

1.11 Decision table

1.12 Scientific uncertainty

1.13 Research and data needs

1.14 Rebuilding projections

2 Introduction

Testing adding in an introduction for COMMON NAME. There is currently no read of parameters for child documents.

2.1 Life History

Refer to the most recent full assessment for additional information.

2.2 Ecosystem considerations

Refer to the most recent full assessment for additional information.

2.3 Fishery description

Refer to the most recent full assessment for additional information.

2.4 Management History

Refer to the most recent full assessment for additional information.

2.5 Management performance

2.6 Fisheries off Canada and Alaska

Refer to the most recent full assessment for additional information.

3 Data

3.1 Fishery-dependent data

3.1.1 Landings

3.1.2 Discards

3.1.3 Biological data

3.1.4 Abundance indices

3.2 Fishery-independent data

3.3 Biological Parameters

3.3.1 Natural Mortality

3.3.2 Weight-at-length

3.3.3 Maturity

3.3.4 Fecundity

3.4 Environmental and ecosystem data

4 Assessment model

4.1 History of modeling approaches

Refer to the most recent full assessment for additional information.

4.2 Responses to SSC Groundfish Subcommittee requests

To be completed after review.

4.3 Model Structure and Assumptions

4.3.1 Model Changes from the Last Assessment

4.3.2 Modeling Platform and Structure

4.3.3 Model Parameters

4.3.4 Key Assumptions and Structural Choices

Refer to the most recent full assessment for additional information.

4.4 Base Model Results

4.4.1 Parameter Estimates

4.4.2 Fits to the Data

4.4.3 Population Trajectory

4.5 Model Diagnostics

4.5.1 Convergence

4.5.2 Sensitivity Analyses

4.5.3 Retrospective Analysis

4.5.4 Likelihood Profiles

4.6 Unresolved Problems and Major Uncertainties

5 Management

5.1 Reference Points

5.2 Harvest Projections and Decision Tables

5.3 Evaluation of Scientific Uncertainty

5.4 Regional management considerations

5.5 Research and Data Needs

5.6 Acknowledgements

5.7 References

5.8 Tables

5.9 Figures

5.10 Notes

5.11 Appendices