Job satisfaction: perspectives from fishers in northeastern Hokkaido, Japan

Sweke EA, Kobayashi Y, Makino M, Sakurai Y

esweke@yahoo.com

PRESENTATION OUTLINE

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- General introduction
- Rationale of the study
- Study objective

2. MATERIALS AND METHODS

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- Data collection techniques
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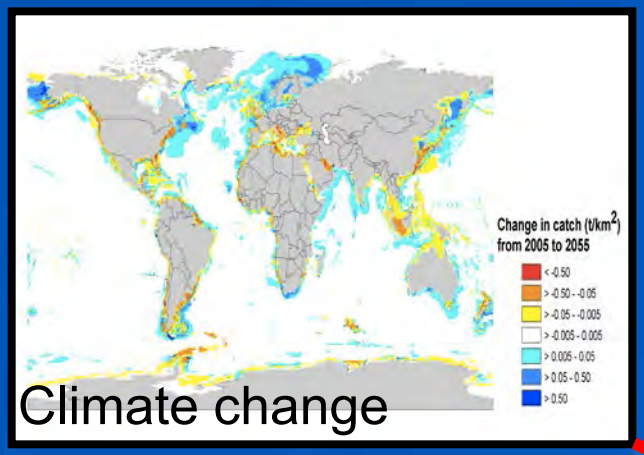
KEYWORDS

- Satisfaction
- Sustainability
- Change
- Economics

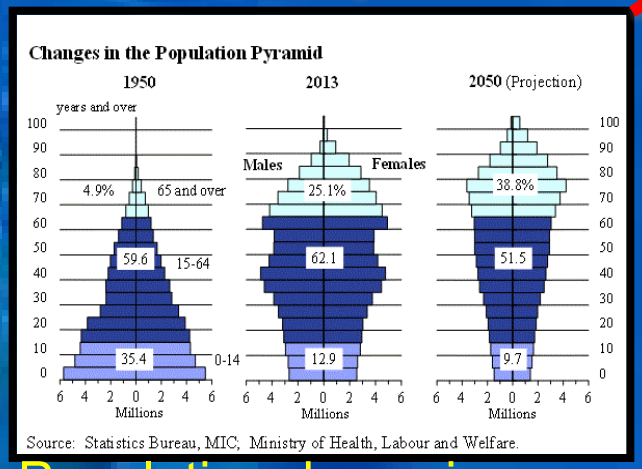
INTRODUCTION



Climate change

Food

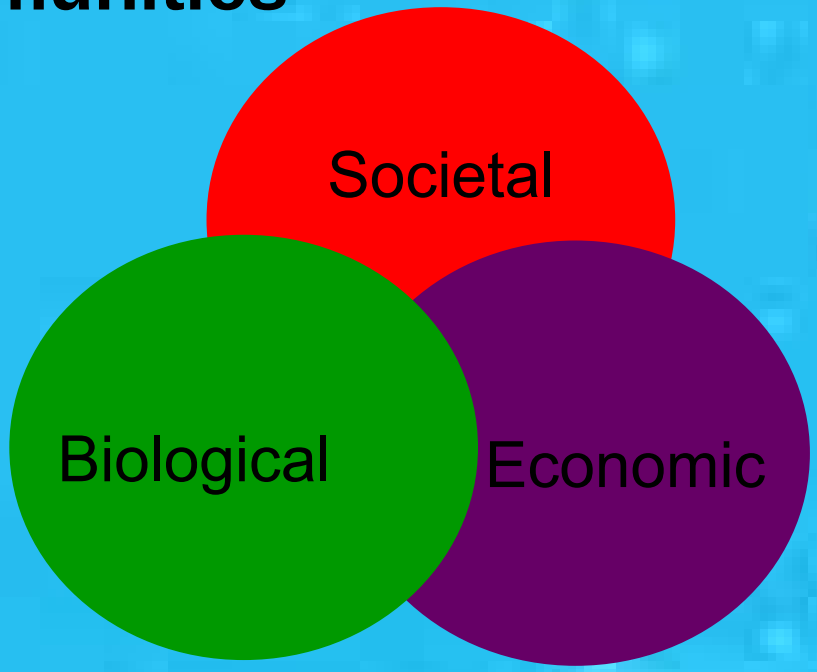
Fisheries

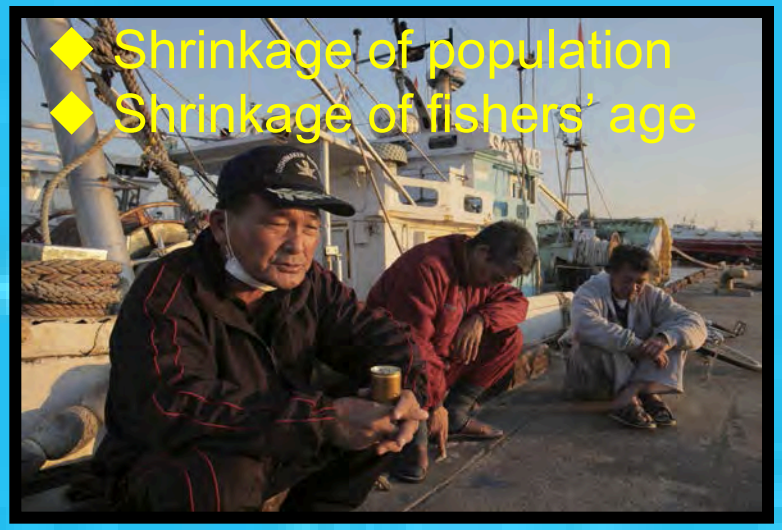


Population dynamics

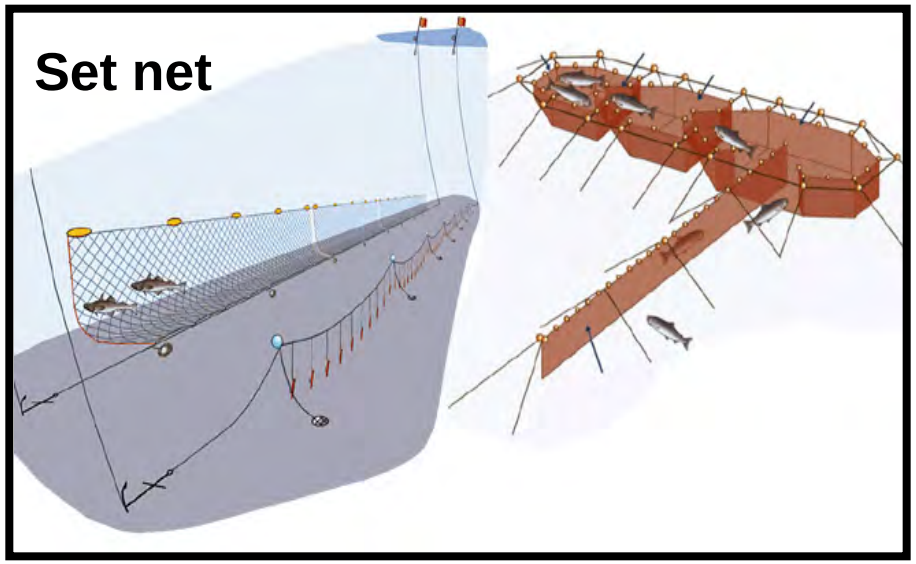
Economy

Globally occurring transition in traditional fishery communities





Fishing methods in the study areas



Factors attributing to job satisfaction

Gross regional production
(Kunimitsu 2014)

Gender
(Mroczek and Kolarz 1998)

Occupation
(Tsutsui 2010)

Age
(Blanchflower and Oswald 2004)

Fishing
- traditions
- beauty of the sea
- being one's boss

(Pollnac et al. 2001)

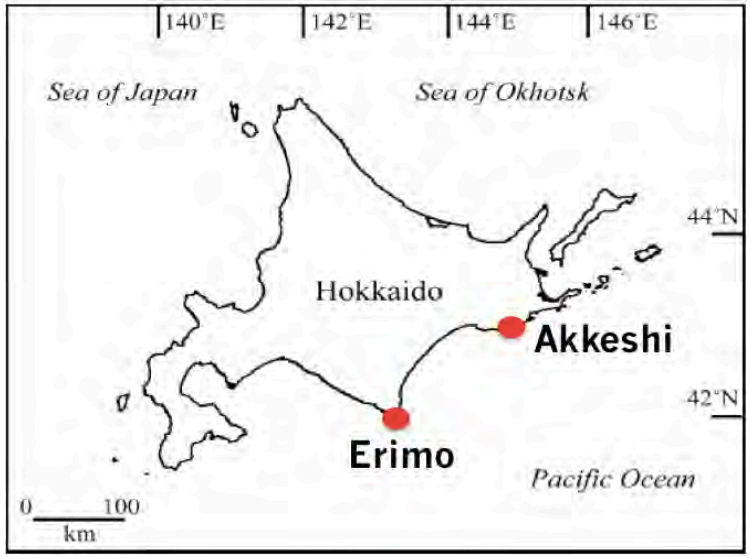
Fishery systems Mngt. plans
(Pollnac and Poggie 1998)

Study objective

To examine fishing satisfaction among local fishers:

- Determine factors attributed to fishing satisfaction
- Assess variations in species catch and income
- Compare and contrast results between mixed fisheries and capture fisheries communities
- Determine future potential target species

MATERIALS AND METHODS



Criteria	Akkeshi	Erimo
Population **Fishers**	10894 (2010) ≈500	5413 (2010) ≈470
Fishery type	Mixed: Capture & aquaculture	Specialized: Capture
Main species	Oyster (*Crassostrea gigas*) Kelp Salmon, etc.	Kelp *(Laminaria angustata)* Salmon *(Oncorhynchus keta)* Whelk, etc.

Data collection

Data	Source	Duration
Catch and income	Fisheries Cooperative Associations (FCAs)	June 2013 Akkeshi: 1960-2010 Erimo: 1967-2010
Demographics Target species Others	Questionnaires surveys	April 2014-April 2015

Questionnaire survey

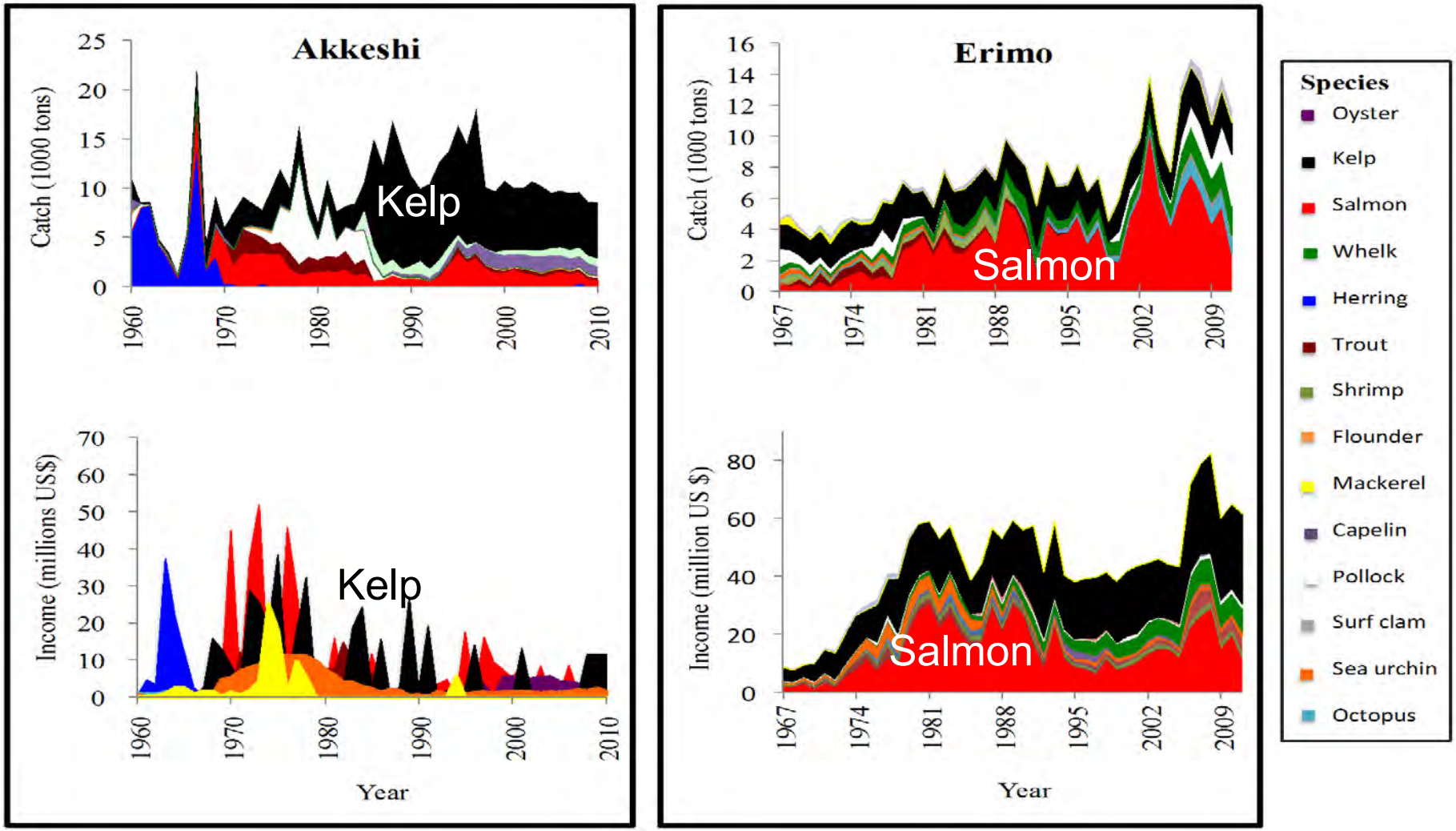
Pilot survey
- 20 respondents
- 62 questions

Sections
- operation history
- OCCUPATION
- alternative activities
- sustainability

Final survey
- 193 respondents
- 40 questions

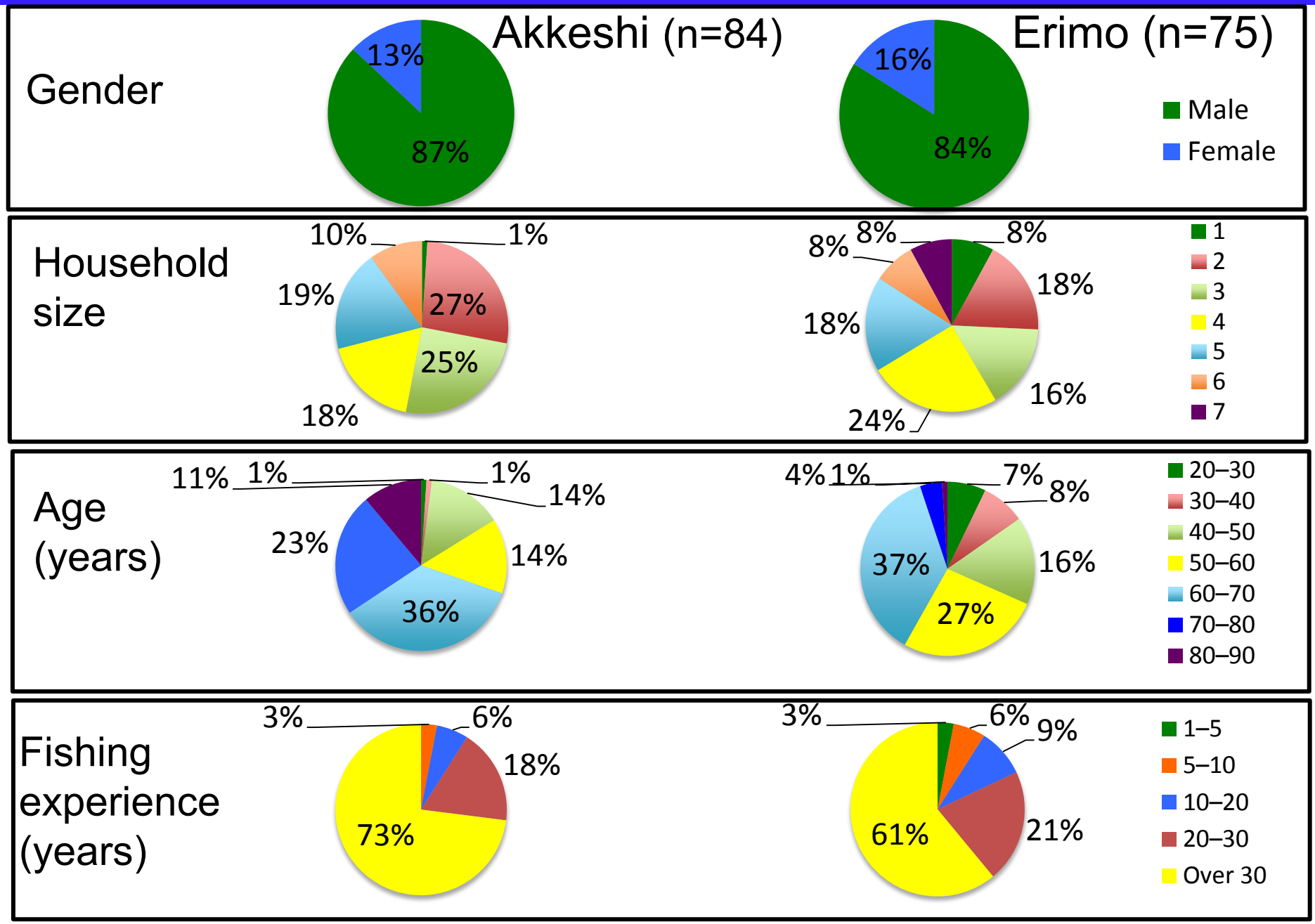
Analysis
- crosstabs
- multivariate analysis
- frequency, mean, percentage
- correlations (ρ)

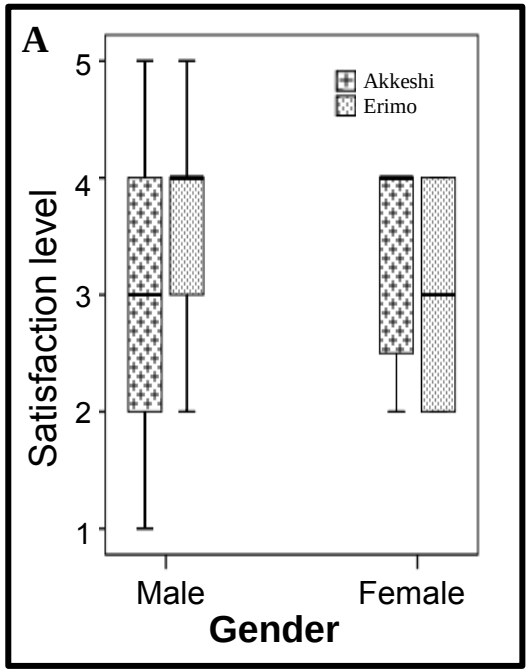
RESULTS AND DISCUSSION

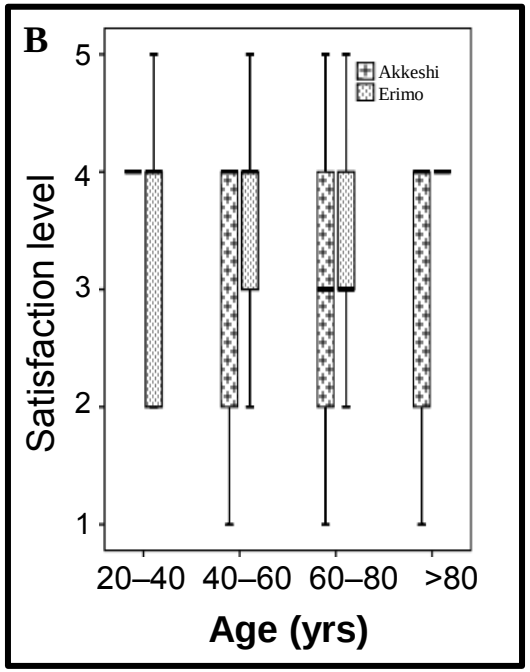


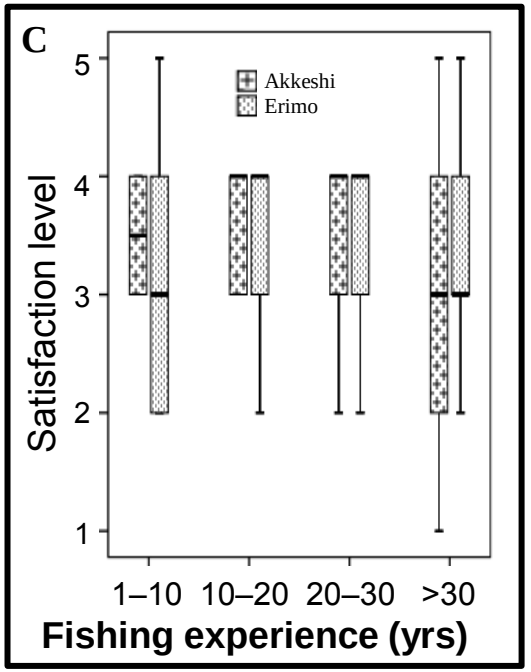
Annual catch and income in the areas (Data: FCAs)

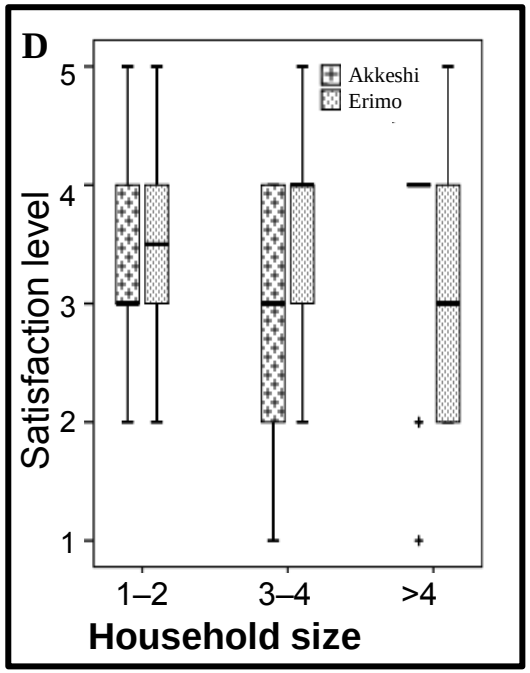
Demographics of the respondents

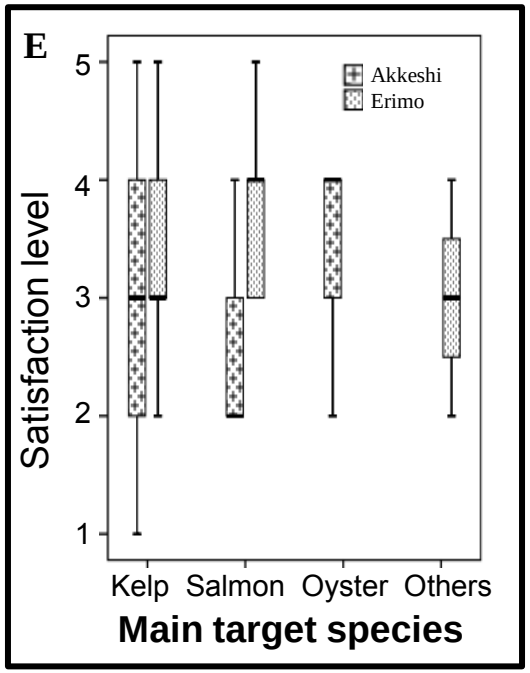












Satisfaction level

5 = Extremely satisfaction

4 = Moderately satisfaction

3 = Neutral

2 = Moderately dissatisfaction

1 = Extremely dissatisfaction

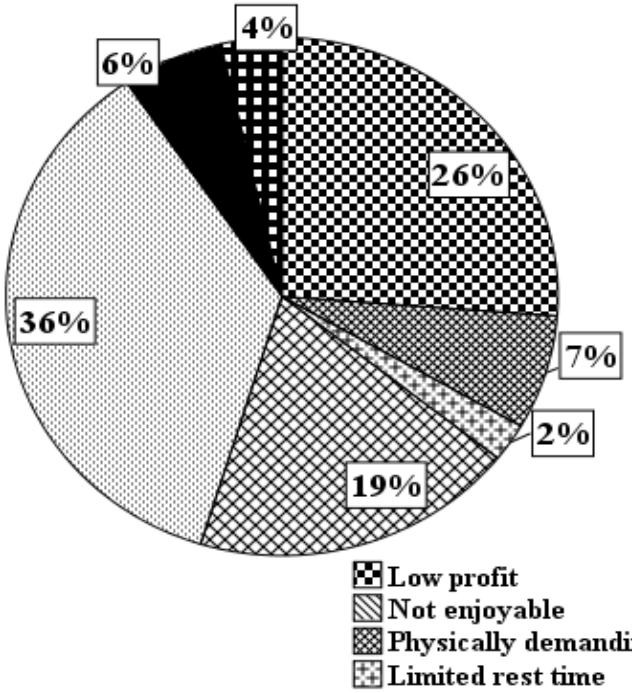
Correlations between satisfaction and variables

Area		Gender	Age	Experience	Household	Species
Akkeshi	ρ	0.01	0.26	0.37	0.42	0.62
	n	84	84	82	78	79
	p	0.67	0.49	0.79	**< 0.01**	**< 0.05**
Erimo	ρ	0.17	0.28	0.24	0.26	0.47
	n	71	69	71	64	68
	p	0.37	0.49	0.67	**< 0.05**	0.52

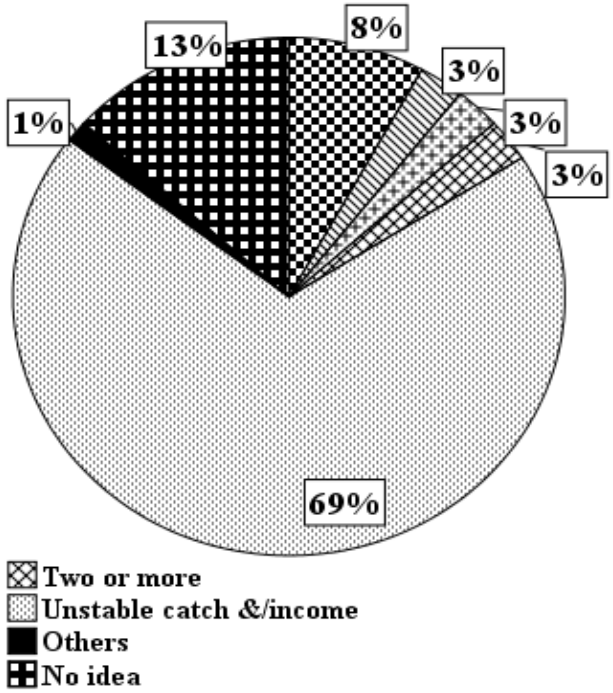
Fishers in Erimo were more satisfied (mean = 3.37, n = 71) than fishers in Akkeshi (mean = 3.08, n = 84).

Reasons for low job satisfaction

Akkeshi (n = 84)

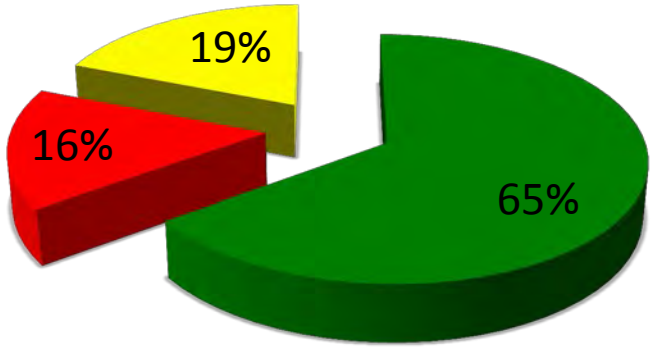


Erimo (n = 75)

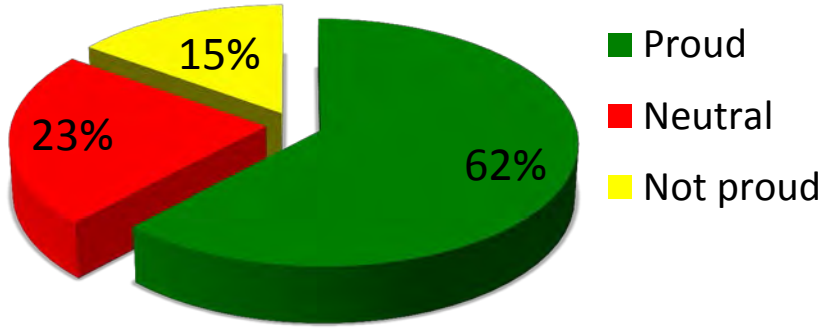


- Unpredicted fisheries prospects/change
- Slow switch in effort allocation among species (Sweke et al., 2015 *under prep.*)
- Fishing license: Fisheries institutions (Lim et al., 1995), traditions (Wakita et al, 2014, Makino et al. 2009)

Are you proud of your occupation?

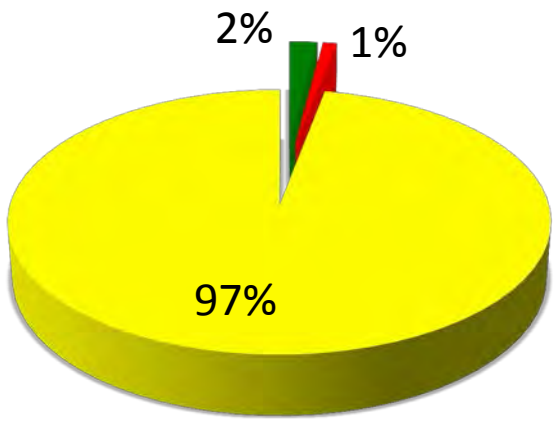


Akkeshi (n = 83)

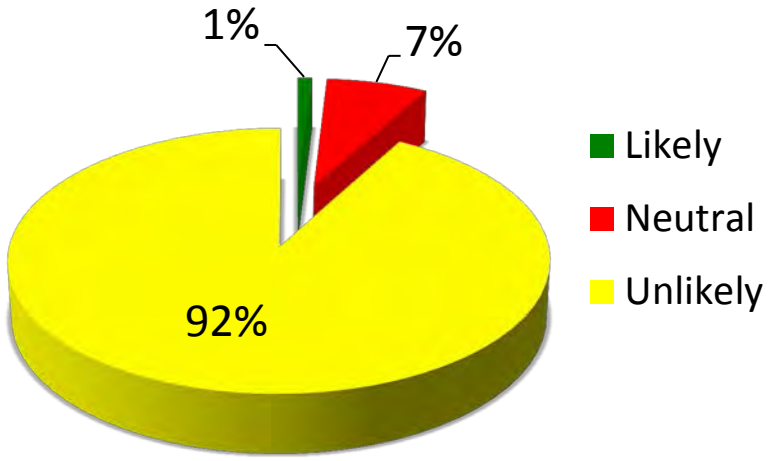


Erimo (n = 71)

How likely are you to change occupation?



Akkeshi (n = 84)



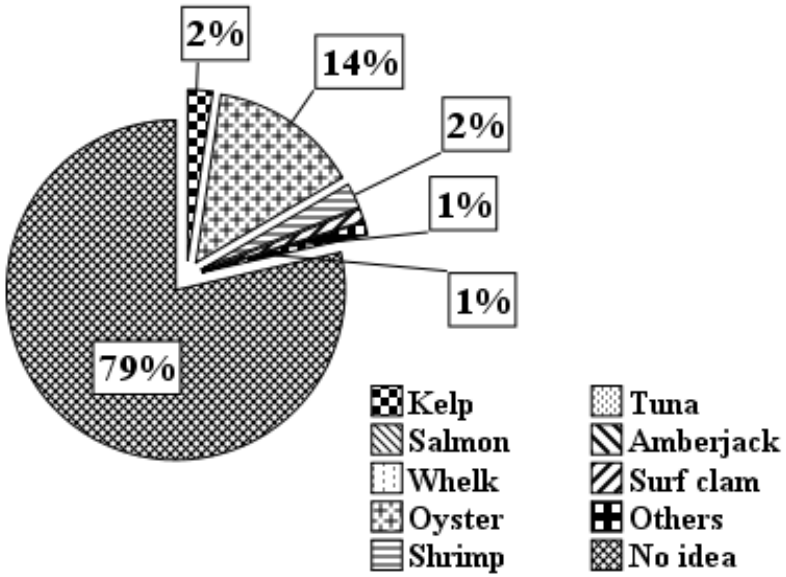
Erimo (n = 72)

Unwillingness to change occupation (%)

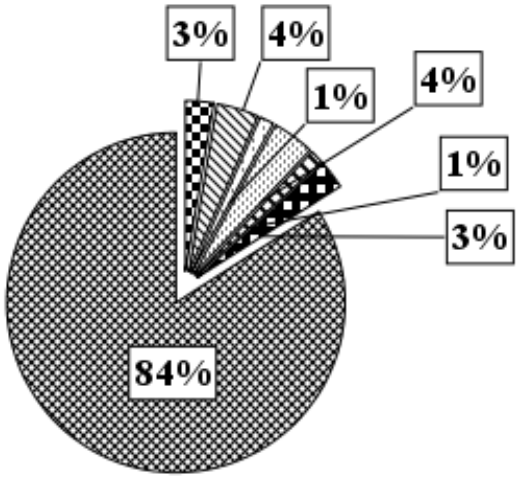
Reason	Akkeshi					Erimo				
Age	20–40	40–60	60–80	80≤	Total	20–40	40–60	60–80	80≤	Total
Satisfied	50	30.43	18.37	11.11	21.69	27.27	25.93	5.56	0	19.30
Inexperience	0	4.35	10.20	0	7.23	18.18	22.22	50	0	29.82
Age	0	13.04	16.33	0	13.25	18.18	29.63	22.22	100	26.32
Two/more	50	17.39	28.57	11.11	24.10	9.09	3.70	0	0	3.51
Own boss	0	13.04	8.16	0	8.43	9.09	0	0	0	1.75
Love fishing	0	8.70	6.12	22.22	8.43	0	7.41	11.11	0	7.02
Traditional	0	4.35	4.08	11.11	4.82	9.09	0	0	0	1.75
No idea	0	8.70	8.16	44.44	12.05	9.09	11.11	11.11	0	10.53
%	100	100	100	100	100	100	100	100	100	100
n	2	23	49	9	83	11	27	18	1	57

Future potential target species

Akkeshi (n = 84)



Erimo (n = 75)



- Future is invisible (no extinction?/limited alternatives)
- Slow switch in effort allocation among species (Sweke et al., 2015)
- Fishing license: Fisheries authorities (Lim et al., 1995), traditions (Wakita et al, 2014, Makino et al. 2009)

CONCLUSIONS

- Moderate satisfaction: fishers in Erimo were more satisfied than fishers in Akkeshi
- Satisfaction was significantly associated with target species (Pollonac & Poggie, 1988) and household size in Akkeshi, and only to household size in Erimo
- Differences in satisfaction among fishers: disparities in fisheries systems in the areas
- Fishers are unwilling to change occupation: limited alternatives and traditions

CONCLUSIONS

- Satisfaction maximization: processing to add value
- Ecological and social sustainability: good and timely adaptive management approaches are inevitable
- More studies to examine effects of management on satisfaction of fishers
- Alternatives occupation to fishing
  - Limited
  - Eco-tourism