

Revealing Potential Demand for Eco-labeled Seafood in the Japanese Market

Hiroki Wakamatsu, Hirotsugu Uchida,
Cathy A. Roheim and Christopher M. Anderson
Dept. of Environmental Natural Resource Economics
University of Rhode Island



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Motivation

- From previous study:
 - Most consumers unaware of status of world's fisheries resources
 - MSC is not well known; consumers don't know what the label means
 - Indication that providing information about each may change perceptions and actions
- This study looks at the value added of ecolabels as a mechanism for consumers to act upon that knowledge in the marketplace

Objectives

How will consumers' seafood demand be affected by:

1. information about the status of fisheries,
2. information about the MSC program;
3. presence of an ecolabel?

Is some combination of the above more compelling than others?

Methodology

- Conducted a controlled experiment creating a market, in which information is provided to consumers to investigate how information affects WTP for ecolabels
- Used “Experimental Economics” – an established technique which garnered a 2002 Nobel Prize in Economics.
 - Applied in analyses of various high-profile issues, e.g., auctioning of bandwidth to cell phone companies by FCC; water allowance trading market.
- Used auctions – every individual submitted one sealed bid per product. Second highest bid was winner.

Information Treatment

1. Information about MSC eco-labels:
Purpose, Standards, chain of custody
Source: www.msc.org

2. Information about global fisheries:
Stock depletion, illegal fishing, species substitution, Japanese seafood consumption

Source: FAO SOWFA, 2006; Japanese Fishery Agency; Clarke, 2009

Q3 MSCエコラベルを貼るにはどうするのか？

MSCエコラベルを商品に貼るには、まずMSCの認証を受けなければなりません。認証を受けるには、当該漁業が以下の三原則を満たす必要があります。



MSCの認証には、当該漁業がMSCとは無関係の第三者機関による審査を受け入れなければならない。この審査によって、科学的なデータの収集と分析が行われます。これらは機関連合体（行政、自然保護団体、業者など）にも公開されます。もし、当該漁業がMSCの定める「持続可能な漁業の三原則」を満たしていると判断されれば、そこで漁獲された海産物の商品にMSCのエコラベルを貼えることとなります。



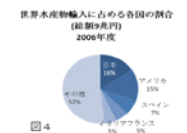
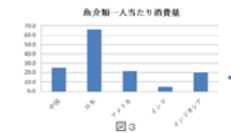
日本国内の漁業では、京都の磯船底産物漁業（ズワイガニとアカガレイ）が、アジア初の認証を昨年9月に取得しました。



違法漁業の魚は日本に入ってきています

違法漁業による魚であることが分からないまま市場に出回っているのが実情です。何故なのでしょうか。

まず、日本人は他国の人々と比べて一人当たりに消費する魚介類の量が突出して多いことが挙げられます（図3）。必然的に、世界で取り回されている水産物の相当割合が日本に集中しています（図4）。前述のように、世界漁業の30%が違法漁業であり、そして日本が世界最大の水産物輸入国であることから、違法漁業によって漁獲された魚が日本の市場に入り、消費者の手に渡っているのです。



鮭も例外ではありません

魚の種類別の輸入金額を比較すると、鮭・マス類は三番目に多く輸入されています（左図）。

そして残念ながら、鮭にも違法漁業が存在します。つまり、現在でも乱獲につながるような運り方で漁獲された鮭が、市場に出回っています。

価値にして年40億円から76億円にものぼる違法漁業で漁獲された鮭が、国内市場に流入しているという試算もあります。

日本の漁師たちは違法漁業に加担していません。しかし、水産物の輸入量などの規模から察するに、違法漁業によって漁獲された魚の相当量を私たちは消費しています。

違反漁業と乱獲の問題は、私たちの日常と無縁ではないのです

Hypothesis

Does information or ecolabel have different effect on WTP for different species?

Three Types of Products

(MSC labeled)

(Non Labeled)



Salted Coho Salmon Fillets

150g / 550 yen at market

Marinated Coho Salmon Fillets (MSC labeled)

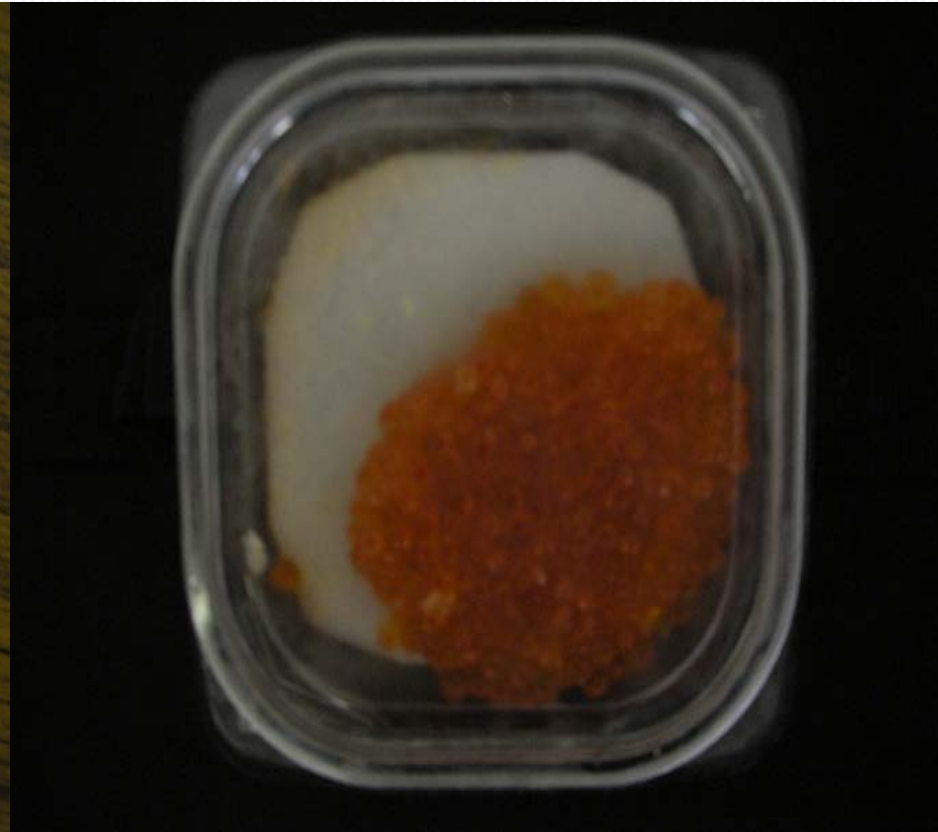
(Non Labeled)



150g / 428 yen at market

Pink Salmon Roe
(MSC labeled)

(Non Labeled)

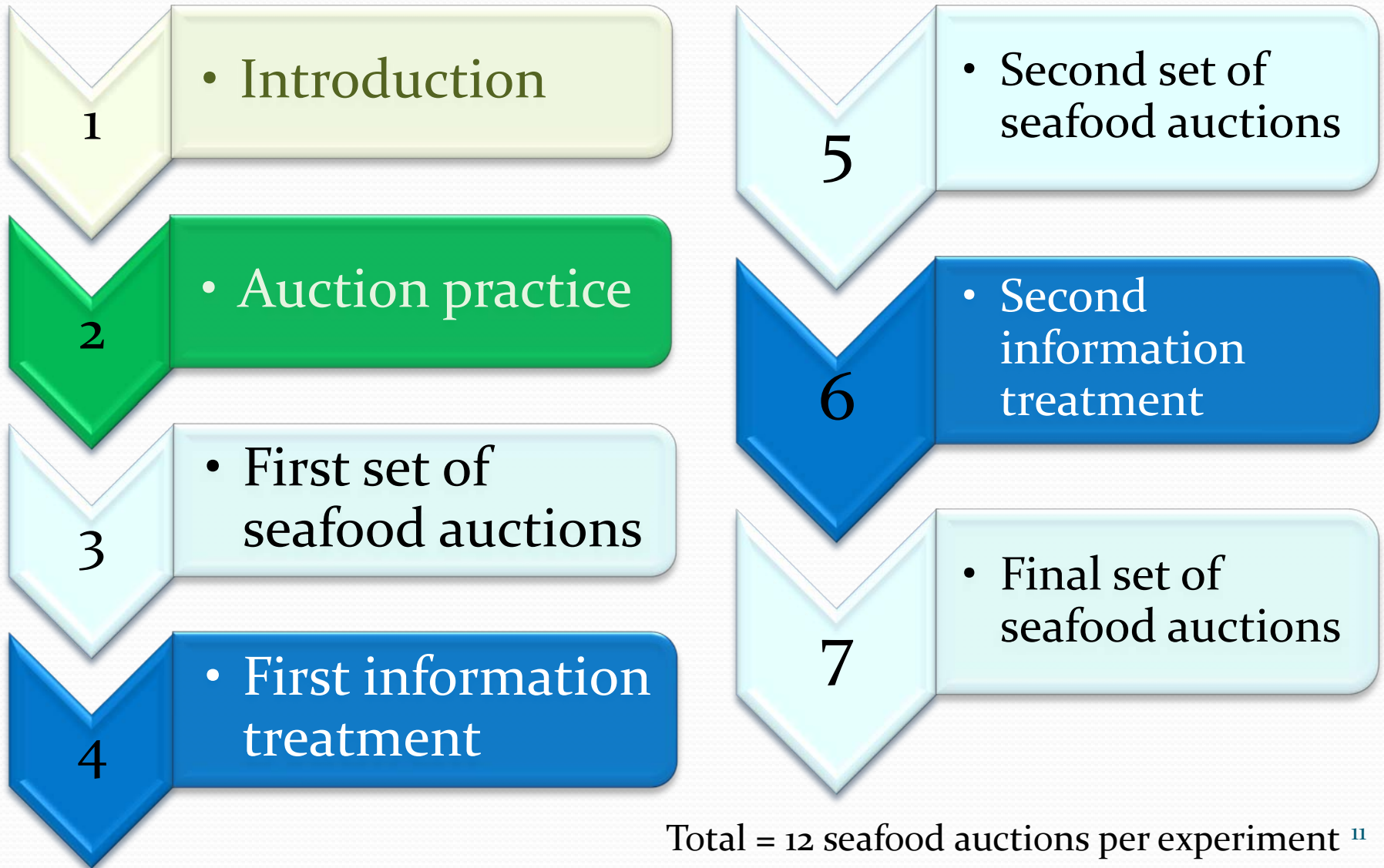


35g / 298 yen at market

The Participants

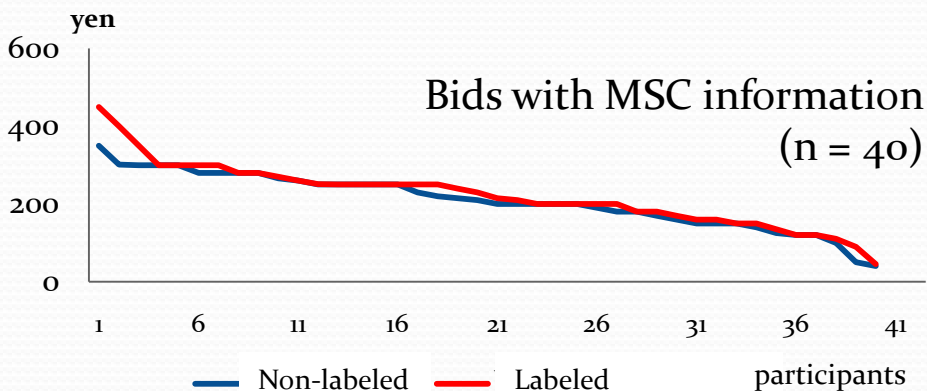
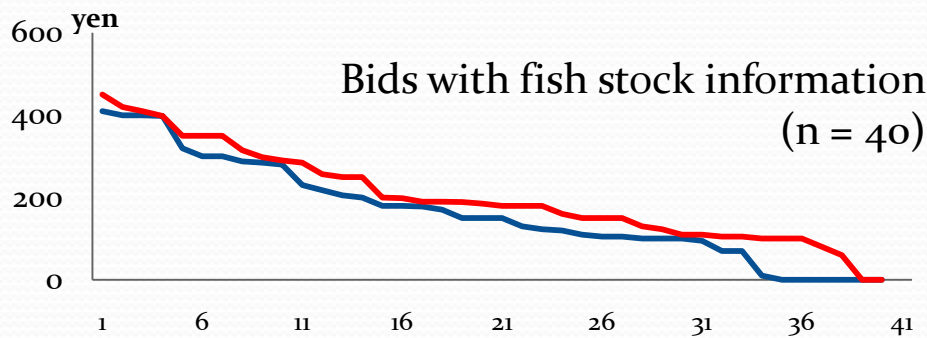
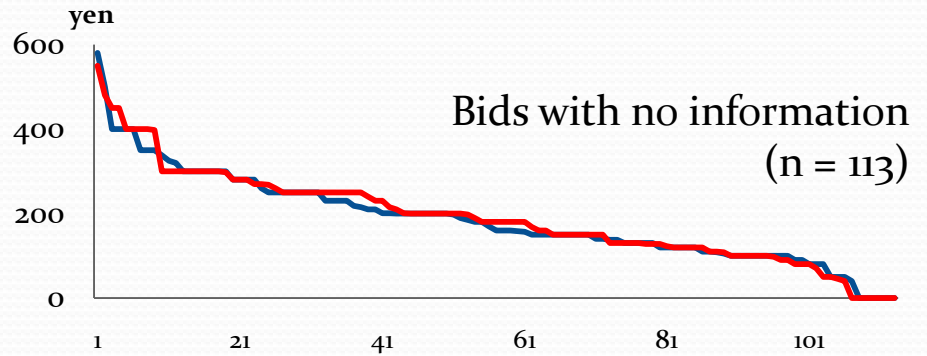
- **Target:** Primary seafood shoppers living in Tokyo
- **Recruitment:** Co-op Tokyo recruited 160 people
- **Incentives:** 5,000 yen and transportation fee
- **Demographics:**
 - 95% female
 - Salmon was most preferred species
 - 70% eat salmon more than once a week
 - 26% had seen and purchased MSC products before

Flow Chart of the Experiment



Total = 12 seafood auctions per experiment ¹¹

Bidding results for marinated salmon



- With no information
 - Bid prices for labeled and non-labeled products are essentially the same.
- With fish stock info only
 - Bidding price for labeled products are consistently higher.
- With MSC info only
 - Premium for labeled products disappears.

Estimated Price Premium (n=1932)

| | | salted | marinated | roe |
|------------|----------|--------|-----------|------|
| No Info | No Label | Base | Base | Base |
| | Label | | | |
| MSC Info | No Label | | | |
| | Label | | | |
| Stock Info | No Label | | | |
| | Label | 10% | 9% | 7% |
| Both Info | No Label | | | |
| | Label | 12% | 10% | 8% |

Conclusions

- Unique feature of this research is ability to act as the ‘sellers’ and control the attributes of seafood sold
- Allows testing the hypothesis that information alters demand for products
 - Result – this is correct, in Japan as elsewhere
- In particular, education about fishery issues is key
- Marketing the MSC label will generate demand for ecolabeled seafood *after* the public understands the need for fisheries certification
- **Given that**, WTP for MSC-labeled seafood is positive and significant
- Final question, do consumers understand salmon is the fish from which all products are derived?
 - or is WTP is simply the same across products because they are willing to pay the same mark-up for sustainability?
- This could be a topic for further research, together with exploration of how information affects WTP for other species

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Thank you!

crw@uri.edu

URI Sustainable Seafood Initiative website
http://seagrant.gso.uri.edu/sustainable_seafood/index.html