

# Economic Studies in Recreational Fishing in Tasmania

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# Motivation

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- How should resource access rights be allocated across competing uses?
  - What is the welfare loss associated with changes in resource abundance and/or quality?
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## Two current studies in Tasmania

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*Study 1:* Estimate marginal willingness to pay per fish caught for a variety of popular recreational fisheries;

*Study 2:* Estimate fishers' willingness to pay for current planned adaption measures to prevent future impacts of climate change.

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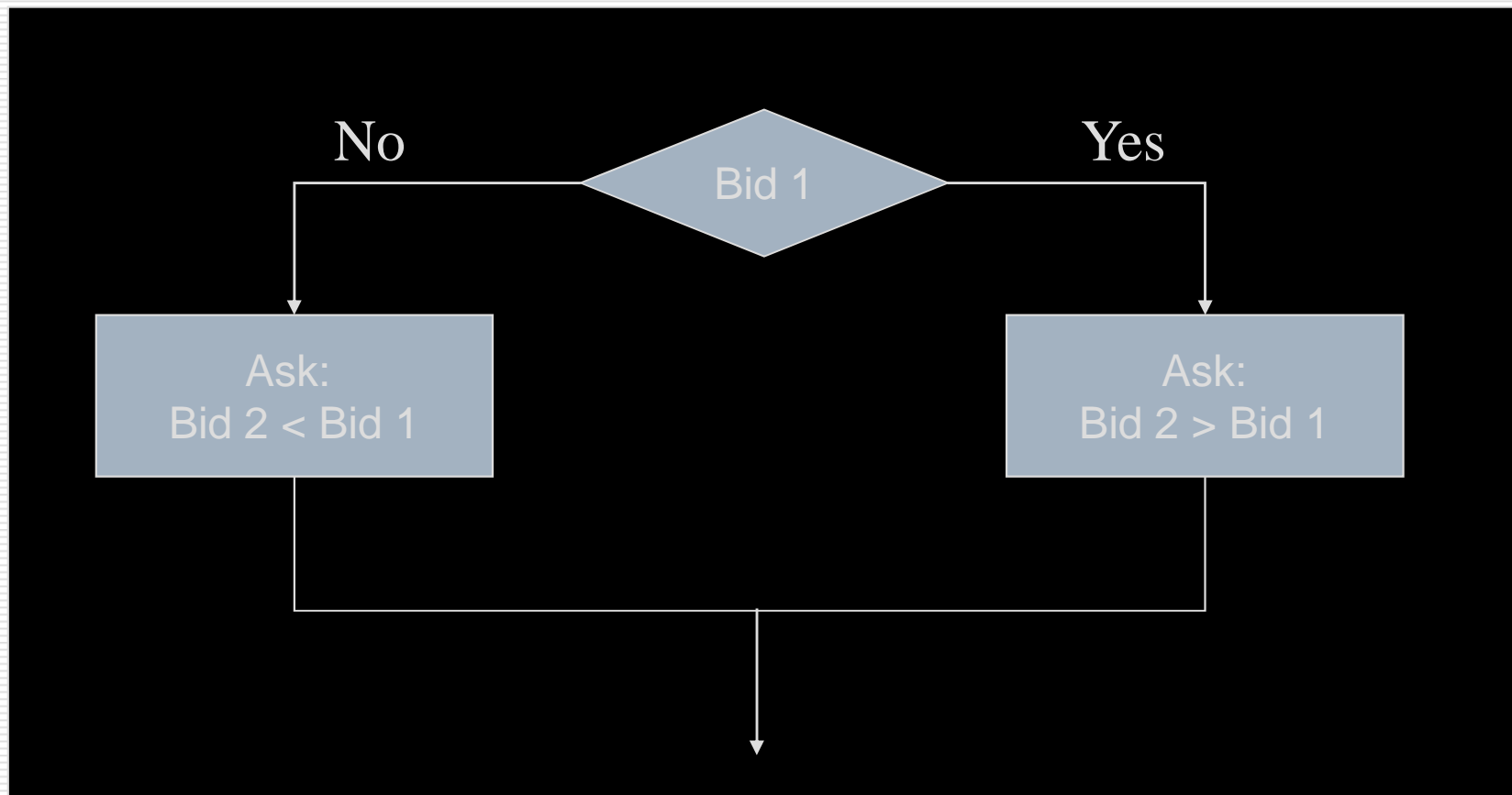
# Methodology

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- Both studies use stated-preference data collected via survey and use the Dichotomous Choice Contingent Valuation Method (DC-CVM)
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# Dichotomous Choice CVM

## Single vs Double-bounded models



Source: Herriges and Shogren (1996)

# Anchoring behaviour explored in both studies

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- ❑ People make estimates of what a 'good' is worth to them by adjusting up/down from an initial (often arbitrary) reference point;
  - ❑ In terms of double-bounded DC-CVM respondents' assess the second bid by its size relative to the first .
  - ❑ Allow for heterogenous anchoring (Herriges and Schogren, 1996)
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# Study 1

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- Telephone survey
  - Administered over ~ four week period;
  - TAFI survey team;
  - Funded by Tasmanian DPIW;
  - Sample size ~500 fishers state-wide.
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- Wheeler and Damania, 2001, *AJARE*
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# Study 1

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- Detailed information on last days fishing activity, quality of experience, costs, motivations, socio-economic indicators.
  - CVM question:  
*"If the last days fishing had cost you \$XX more, would you still have gone?"*
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# Study 1

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Initial bids set at {\$10, \$20, \$30, \$40, \$50, \$60};

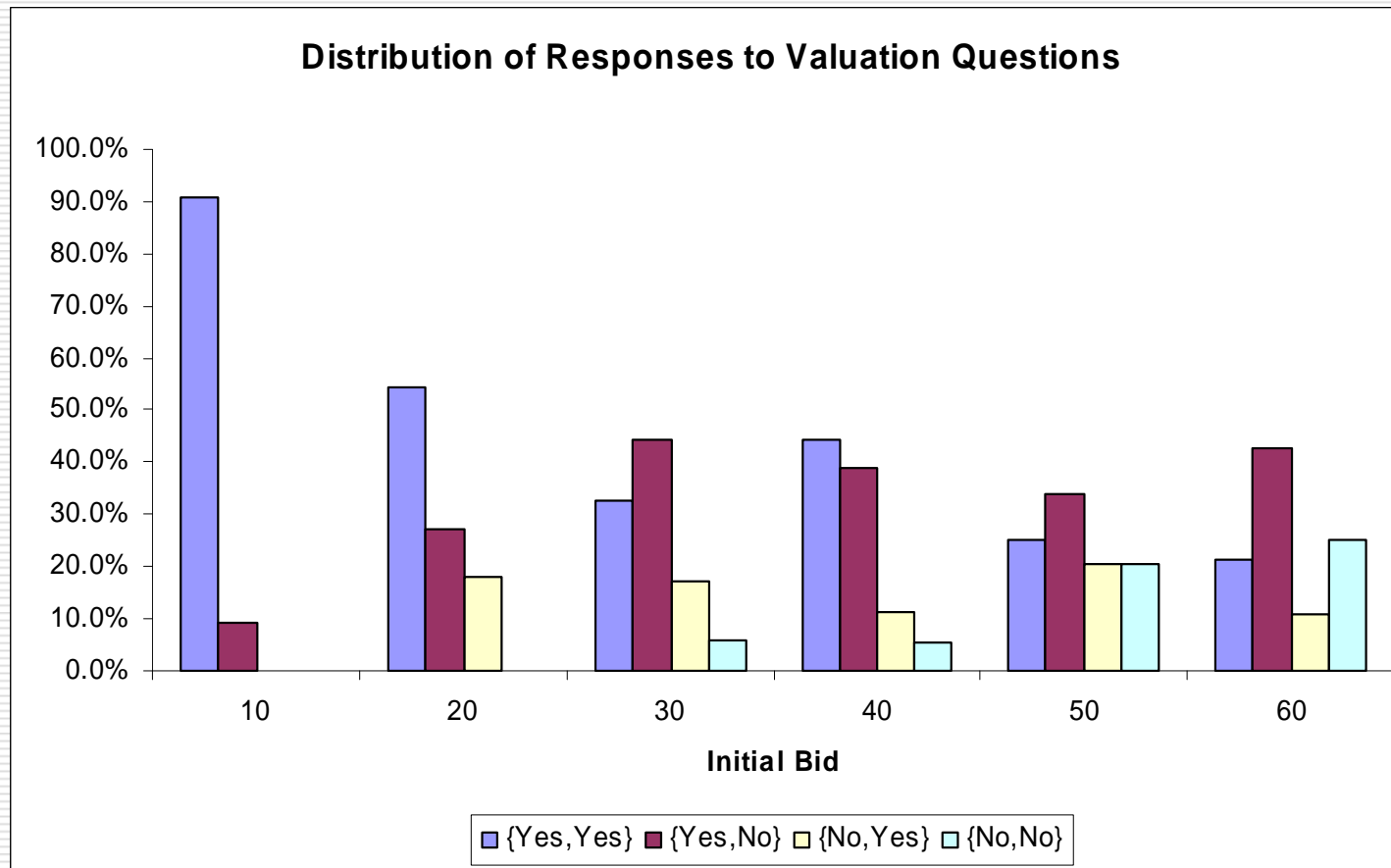
- Randomised  $\sim$  uniform distribution;

- Follow-up question set at double/half initial bid.

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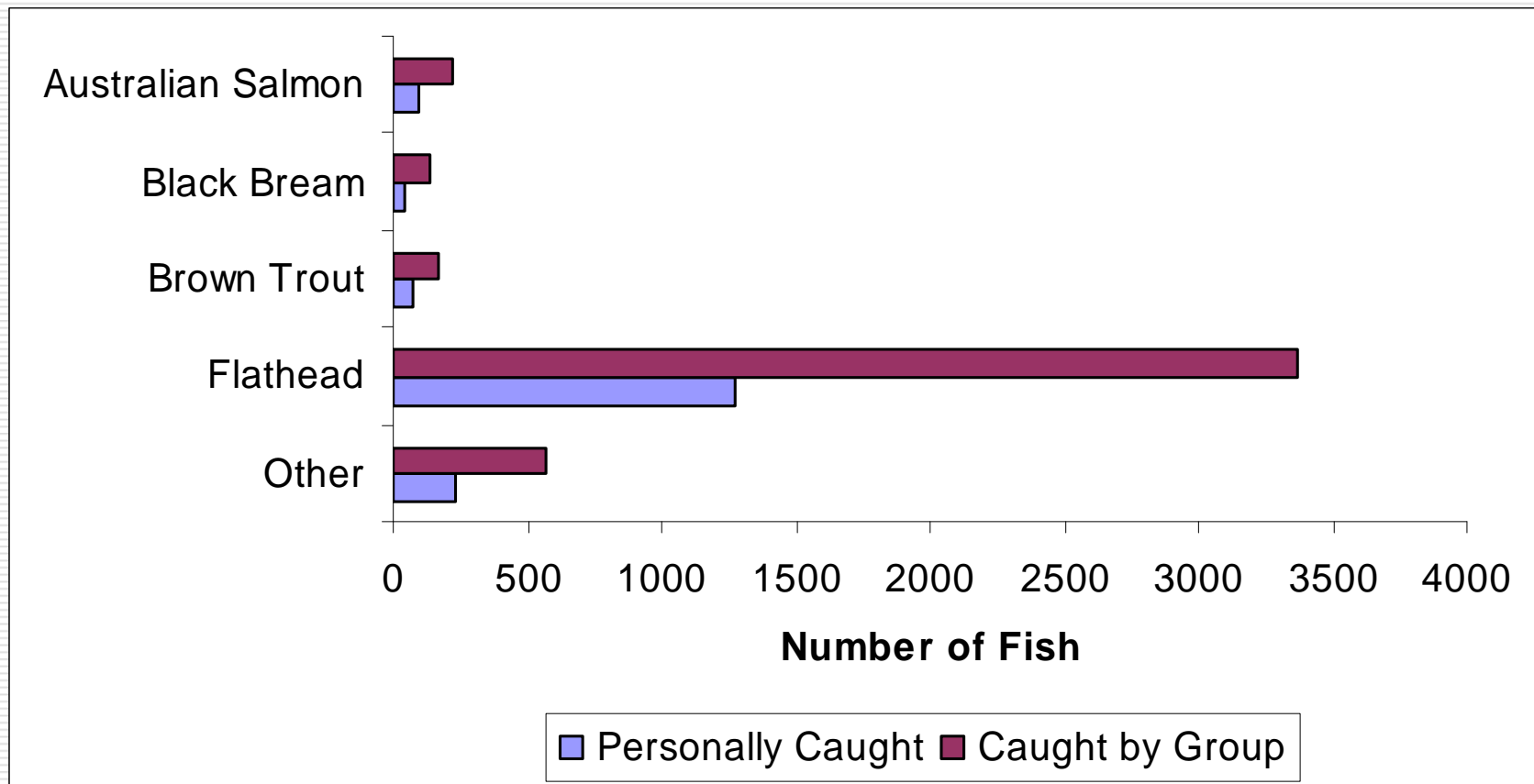
# Preliminary Results – Valuation Question (n=207)

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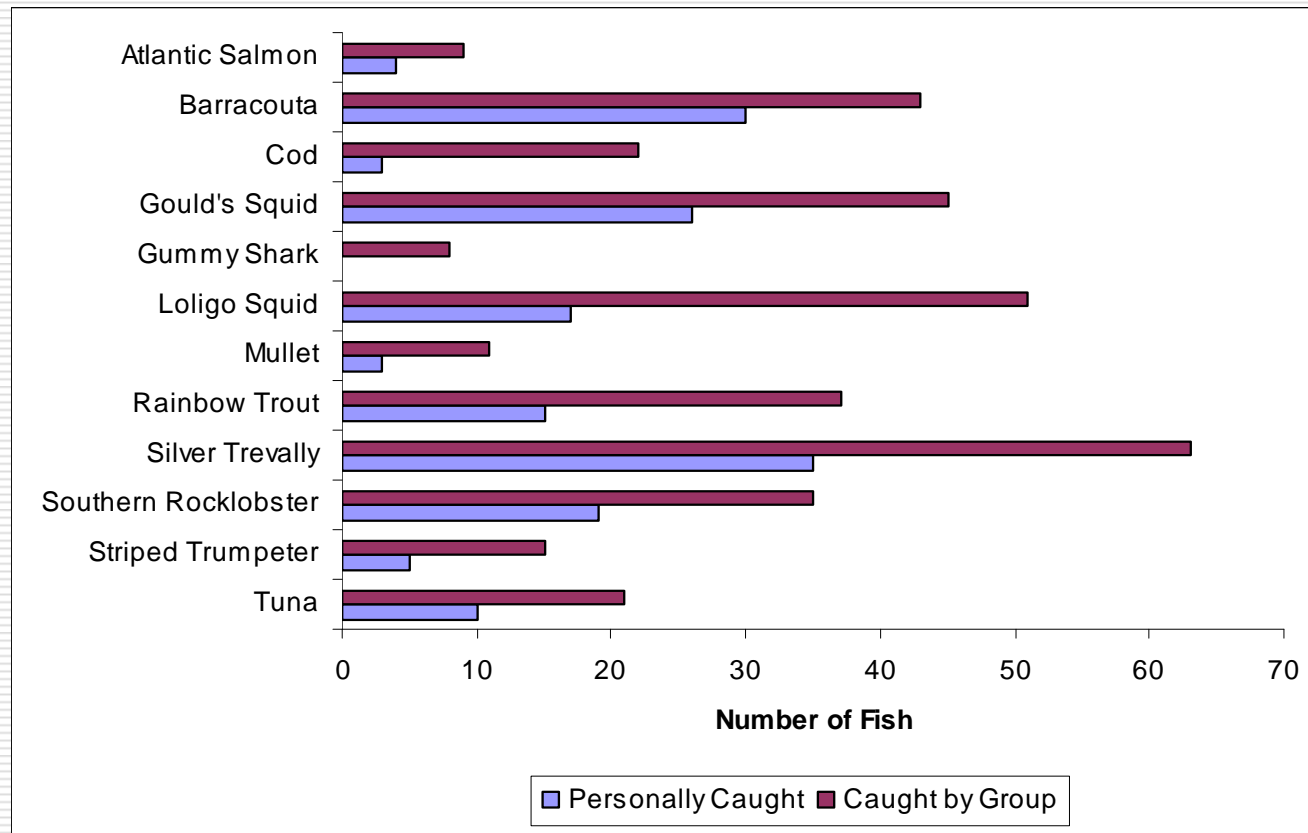
# Preliminary Results – Catch Information – High Activity Species

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# Preliminary Results – Catch Information – Remaining Species

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# Study 2

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- ❑ Mail out survey
  - ❑ Licensed recreational rock lobster fishers???
  - ❑ Detailed information on annual activity, attitudes, experience, future intentions, socio-economic indicators.
  - ❑ Kinnell, Lazo et al. 2002, *Land Economics*
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# Study 2: Key elements

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## Source scenario

- Climate change vs general pressures

## Severity of impact

- Daily catch reduced by 1, 2 or 3 rock lobster per day

## Timing of impact

- Within 5, 10 or 20 years
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# Study 2

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## □ Payment vehicle:

- Annual lobster fishing stamp to fund current management adaptation to prevent impacts occurring in specified timeframe.

## □ CVM question:

*"Bearing in mind that you have many calls on your limited income, if the annual cost of a rock lobster stamp was \$XX would you purchase it? (recall that you must have a stamp before you can buy an annual lobster license)"*

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# Study 2: Extensions

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- Capture influence of individual heterogeneity in
    - Attitude to risk
    - Discount rate
    - Link between distribution and welfare estimates
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