Comparing and Explaining Public Acceptance Of Ecological Forestry in Tasmania and the U.S. Pacific Northwest

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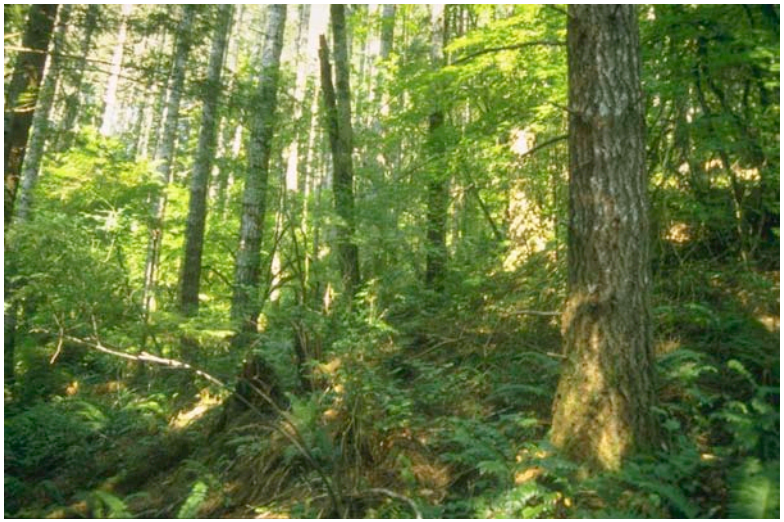
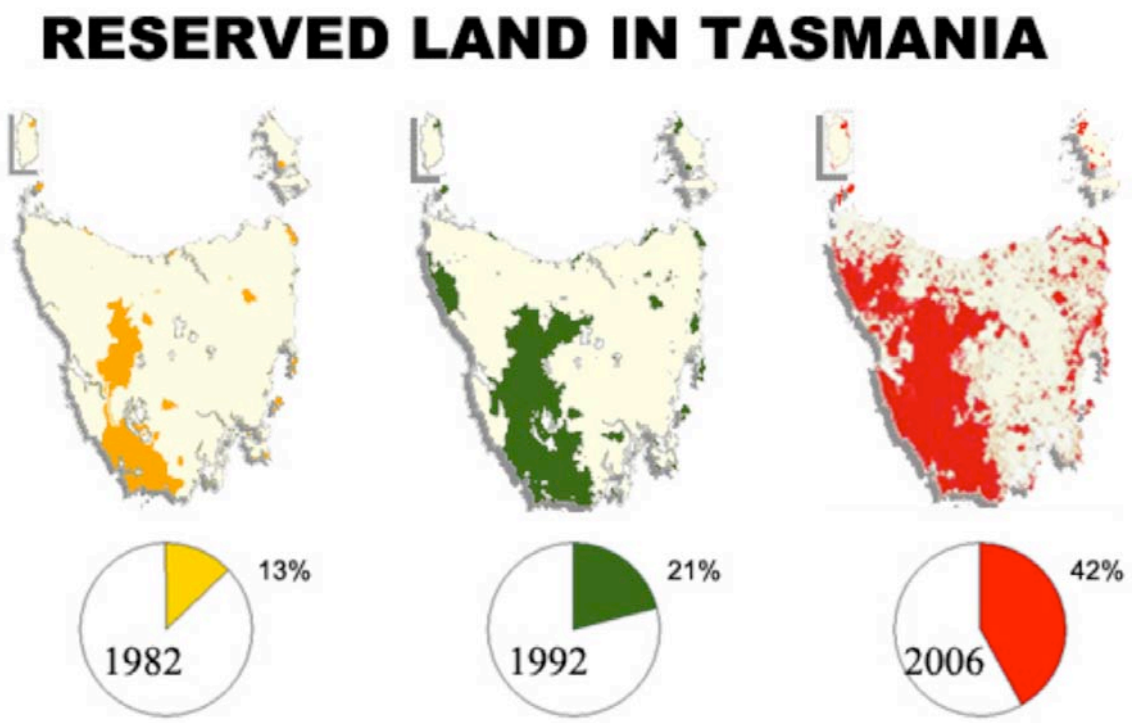
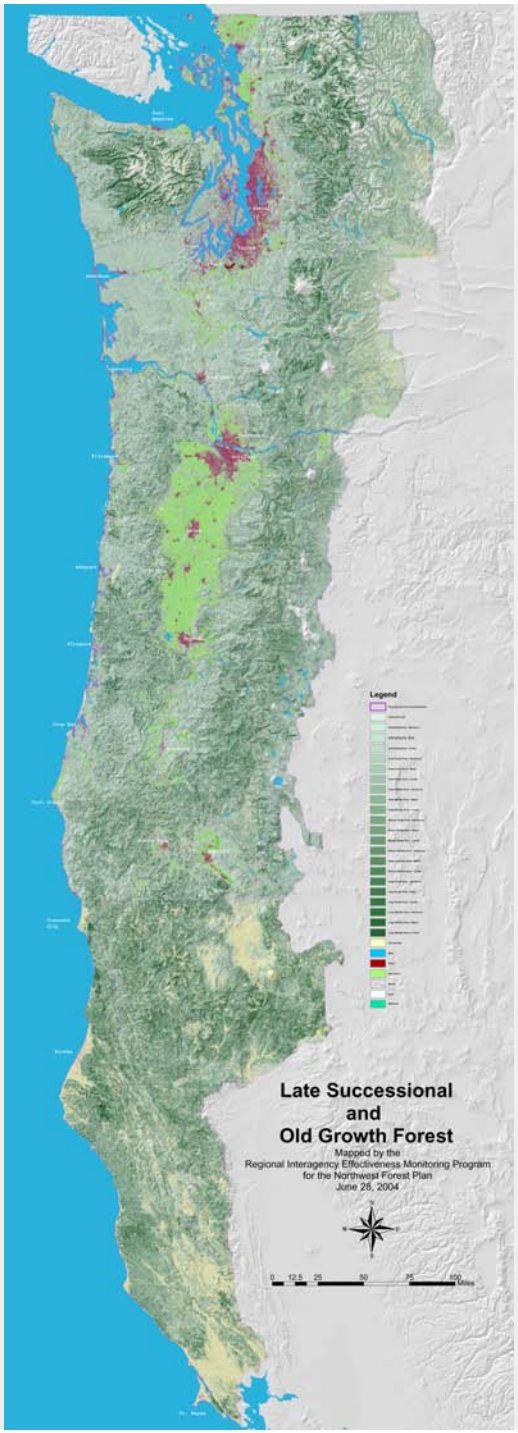
Tasmanian Wet Eucalypt Forests

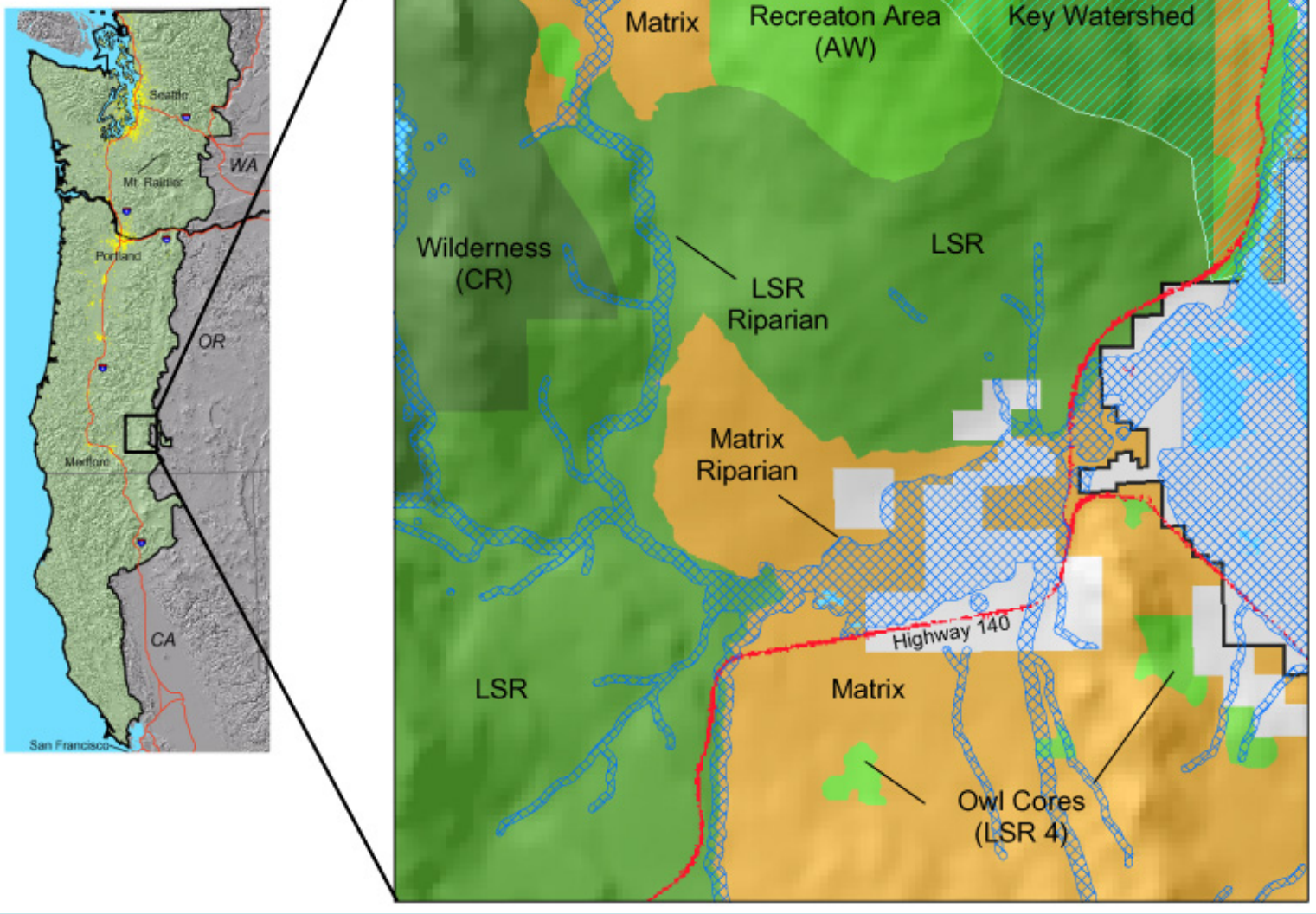
Pacific Northwest Douglas Fir Mixed Conifer Forests







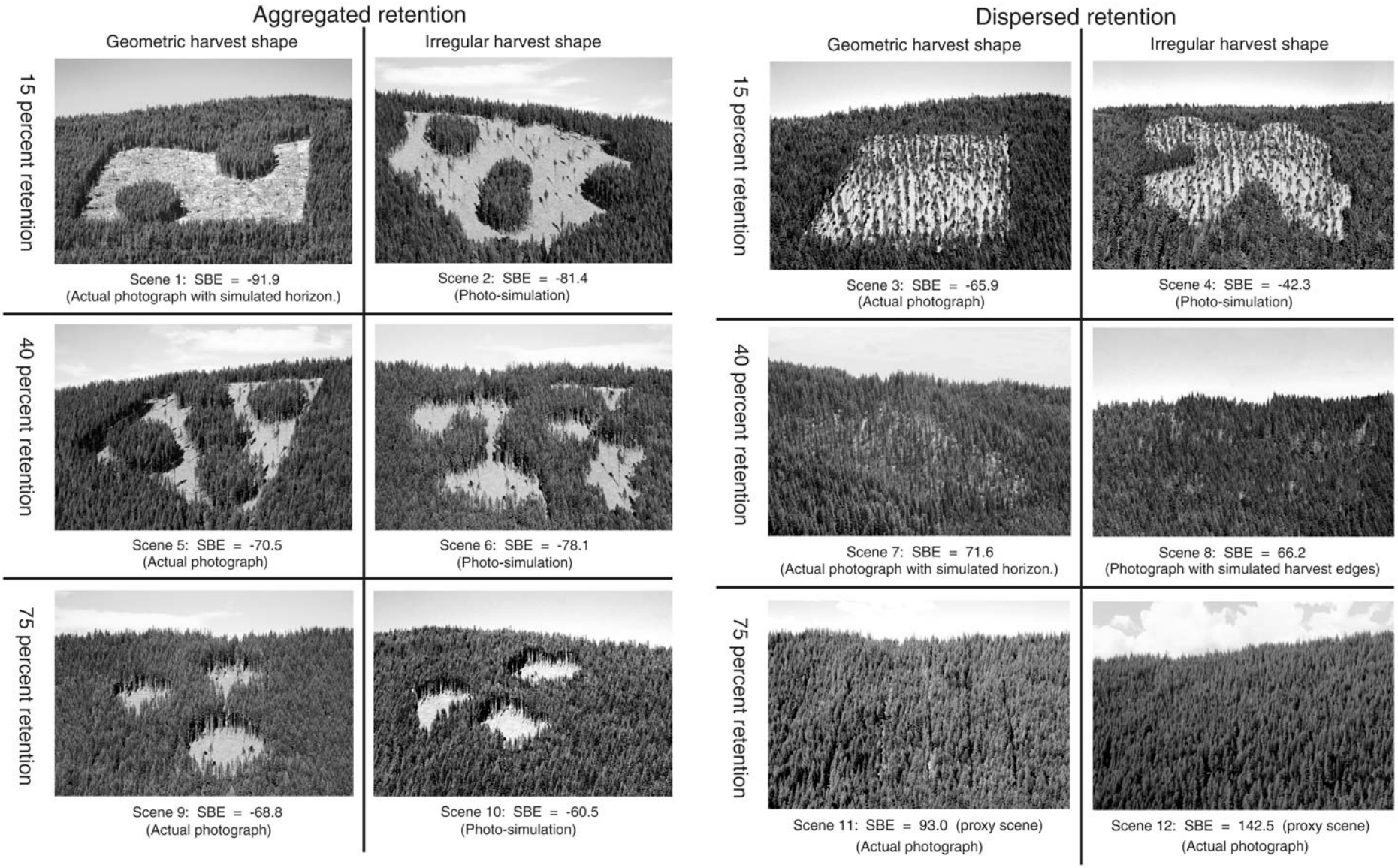
The region of the Northwest Forest Plan.



Changing to "ecological" forestry in U.S. Pacific Northwest

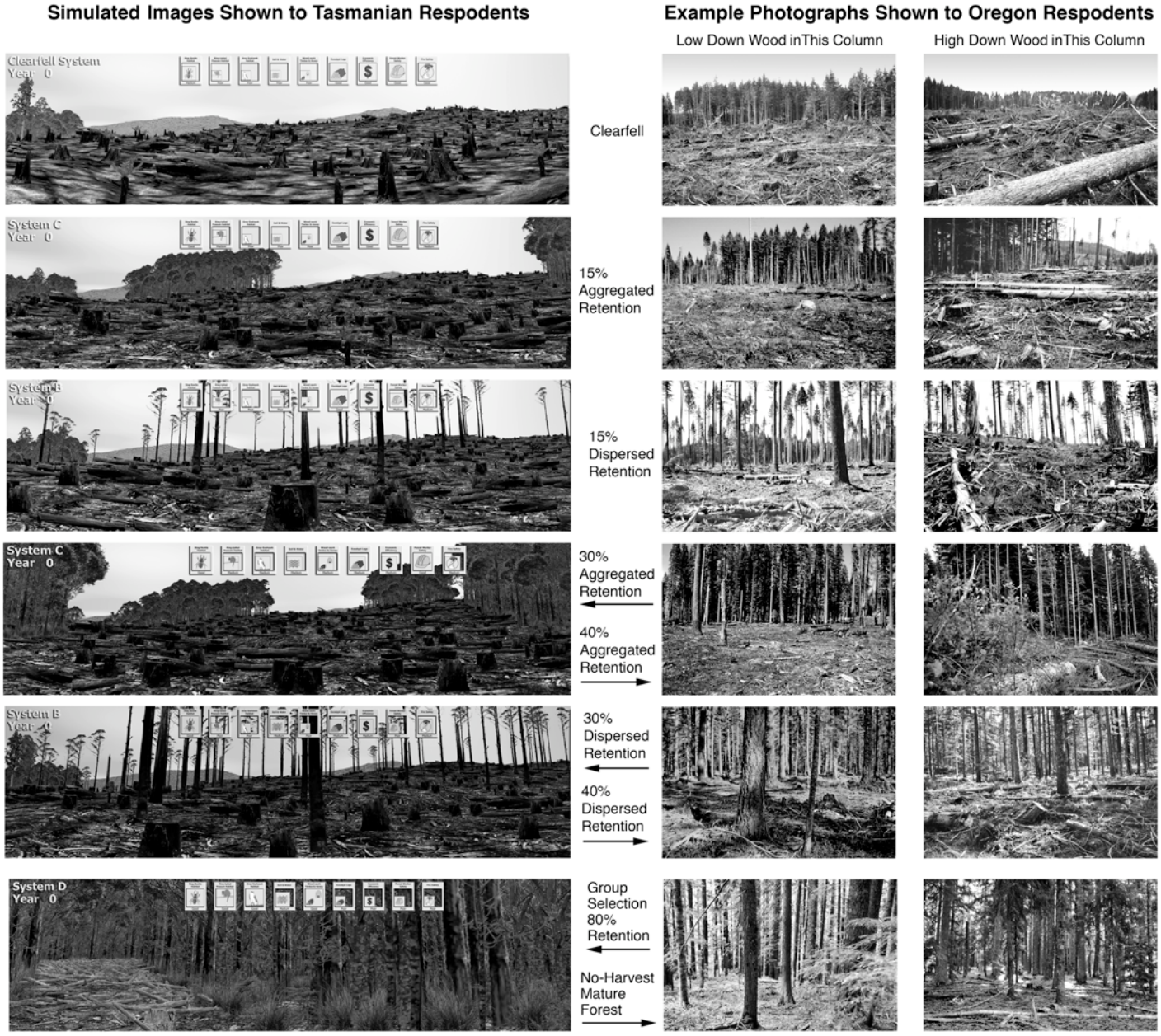
Changing to "ecological" forestry in Tasmania

GREEN-TREE RETENTION TIMBER HARVEST OPTIONS



Example Tasmanian variable retention harvest experiment:

Example Images Shown to Respondents by Analogous Harvests



FORESTRY EXAMPLE NUMBER SIX




Foresters' decision explaining Forestry Example Number 6 shown in above 4 photos:

85 percent of the trees were harvested here from a mature, second-growth forest to provide a substantial timber harvest and the resulting jobs and incomes. The trees left standing are dispersed to reduce fire risk and to help a forest ecosystem come back sooner by feeding the soil and providing habitat and seeds throughout the harvested area. Enough sun will get through these standing trees so newly planted trees can grow quickly into a new forest. Many of the loose logs and branches from logging are left on the ground to provide habitat for animals and enrich the soil.

6A. Considering only the foresters' decision and photos above, how well did foresters balance people's needs and nature's needs in designing this forest treatment? (Please check one box.)

☐ NEEDS TO SERVE NATURE A LOT MORE
☐ NEEDS TO SERVE NATURE MORE
☐ A GOOD, BALANCED DECISION
☐ NEEDS TO SERVE PEOPLE MORE
☐ NEEDS TO SERVE PEOPLE A LOT MORE
☐ DON'T KNOW OR DON'T UNDERSTAND

6B. If you walked through this forest treatment, as shown in the pictures above, and contemplated what you know about it, including the decision story above, how beautiful would you find this place to be? (Please check one box.)

-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
very ugly	quite ugly	fairly ugly	a bit ugly	slightly ugly	neither beautiful nor ugly	slightly beautiful	a bit beautiful	fairly beautiful	quite beautiful	very beautiful

Economic and Safety Needs:

Please look at these five evaluations of this forest treatment and answer the question below them:

Jobs, Income, and Board Feet from This Harvest (High / Medium / Low)
Investment Value of Next Harvest (High / Medium / Low)
Logger Safety for This Harvest (High / Medium / Low)
Edible Mushrooms and Berries (High / Medium / Low)
Wildfire Risk (High / Medium / Low)

6C. Considering the above five estimated results of this forest treatment together, how well do you think this forest serves peoples' needs for financial income and safety? (Please check one box.)

☐ SERVES THESE NEEDS VERY POORLY
☐ SERVES THESE NEEDS POORLY
☐ SERVES THESE NEEDS FAIRLY WELL
☐ SERVES THESE NEEDS WELL
☐ SERVES THESE NEEDS VERY WELL
☐ DON'T KNOW OR DON'T UNDERSTAND

Wildlife Needs:

Please look at these five evaluations of this forest treatment and answer the question below them:

Ground Habitat for Birds, Rodents, Snakes, Bugs & Salamanders (High / Medium / Low)
Habitat Quality in Trees for Birds, Bugs & Mammals (High / Medium / Low)
Deer and Elk Habitat (High / Medium / Low)
Old-Growth Wildlife Habitat (High / Medium / Low)
Help Old-Growth come back sooner (High / Medium / Low)

6D. Considering the above five estimated results of this forest treatment together, how well do you think this forest serves nature's needs to remain healthy to benefit wildlife and society? (Please check one box.)

☐ SERVES NATURE'S NEEDS VERY POORLY
☐ SERVES NATURE'S NEEDS POORLY
☐ SERVES NATURE'S NEEDS FAIRLY WELL
☐ SERVES NATURE'S NEEDS WELL
☐ SERVES NATURE'S NEEDS VERY WELL
☐ DON'T KNOW OR DON'T UNDERSTAND

6E. Considering everything, including the pictures, about Forestry Example Number Six on these two pages, how acceptable is this forest treatment to you as an option for managing public forests, like national forests? (Please check one box.)

-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
very unacceptable	quite unacceptable	fairly unacceptable	a bit unacceptable	slightly unacceptable	no opinion	slightly acceptable	a bit acceptable	fairly acceptable	quite acceptable	very acceptable

If you wish, write explanations below for answers on these two pages, or comments on any other issues. (optional)

Presentation of harvest information to Tasmanian respondents:

Only inside the aggregated-retention uncut areas within harvest coups do Tasmanians retain all members of the plant community found prior to harvesting. In-between areas are clearcut. These aggregated treatments are quite comparable between the regions.

Tasmanian dispersed retention harvests remove all trees except the prescribed basal area of Eucalypt tree species. These are primarily the commercial Eucalyptus obliqua, but may include other less commercial Eucalypt species. The most common understorey type is a rainforest, or mixed forest understorey, which includes tree species other than eucalypts, such as blackwood (Acacia melanoxylon) and myrtle (Nothofagus cunninghamii). Understorey trees are not retained under dispersed retention prescriptions. Regeneration is through natural seedfall from retained eucalypts'.

In US-PNW dispersed retention harvests (40% shown) retain all tree species in the proportions found before harvest, and plant an ecological variety of seedlings.

The same retention rule is often used within retention harvests in planting seedlings in cutover areas.

Much down wood is retained without burning to decay and provide ground habitat, in both dispersed (shown) and aggregated harvests. Seedlings are planted among this down wood.

In Tasmania down wood is burned within harvested aggregates and also within dispersed-harvest coups, in order to foster regeneration of eucalypt species.

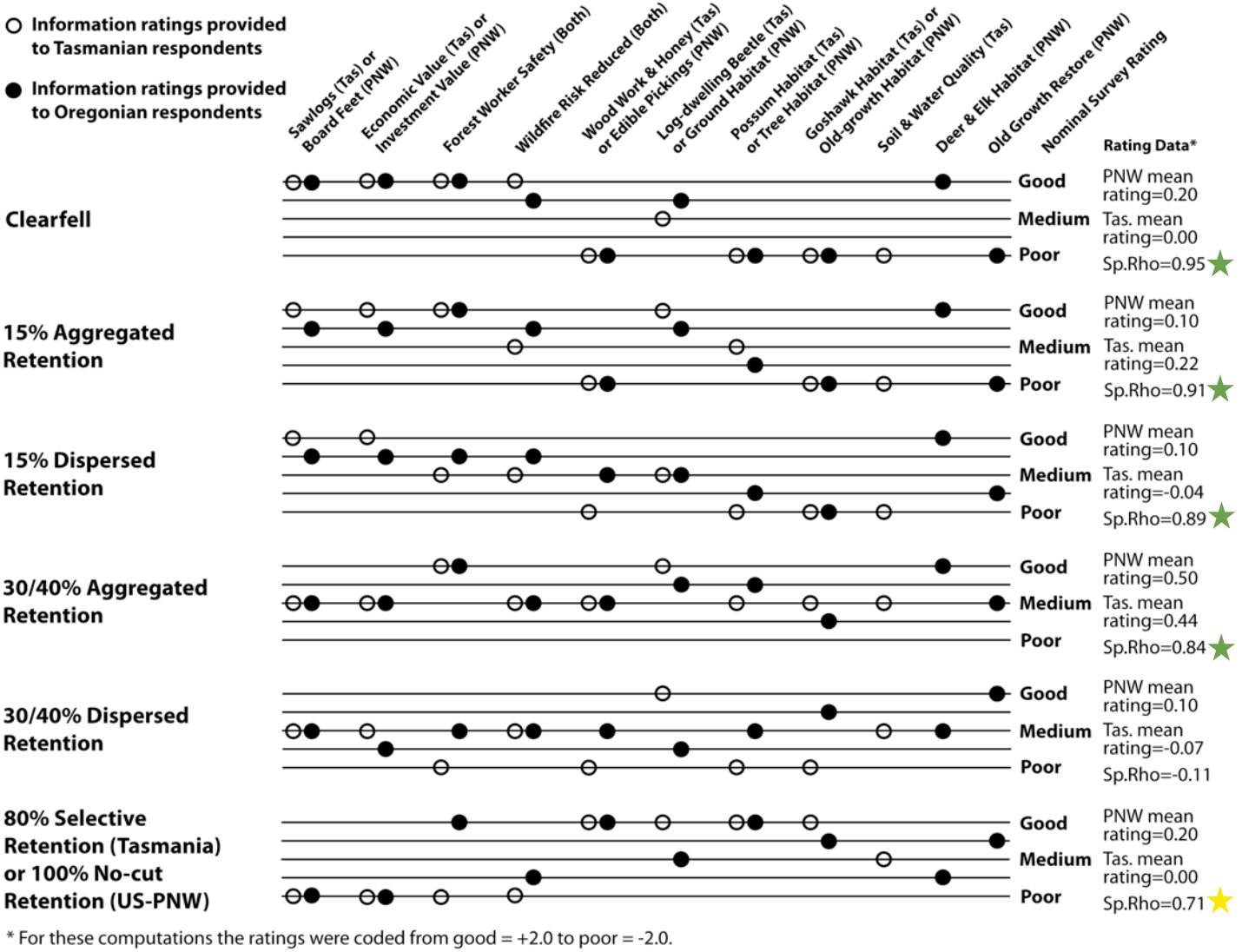
In the US-PNW, aggregated retention harvests are less scenically intact than dispersed retention, due to clearcut openings between the aggregates.

(Here an example of a 40% aggregated retention harvest.)

US-PNW dispersed retention retain more of a scenic appearance of an intact forest, and are perceived as preferred-- given their equivalence to aggregated retention harvests in terms of retained biodiversity (at the same retention level).

(Here an example of a 15% dispersed retention harvest.)

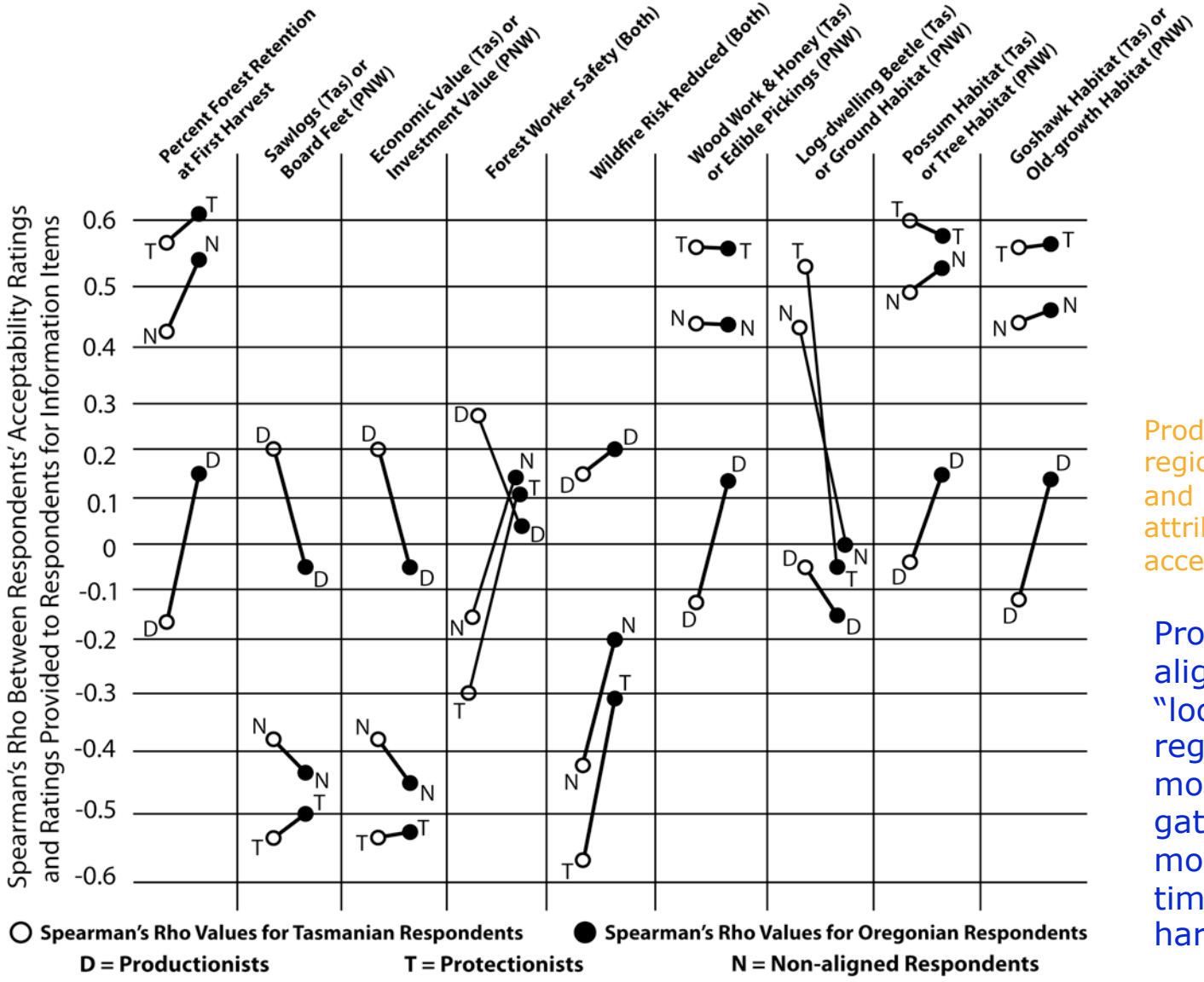
Harvest impact ratings roughly in common between the two studies:



* For these computations the ratings were coded from good = +2.0 to poor = -2.0.

Blue boxes indicate analogous ratings that disagreed substantially between regions.

Nature Precedings : doi:10.1038/npre.2009.3744.1 : Posted 11 Sep 2009



Statistically the same

Statistically the same & both neutral

Significantly different

Productionists agree between regions across all attributes and did not "load upon" any attributes in rating harvests' acceptability

Protectionists & non-aligned people are in "lock-step" between regions, and agree that more retention, more gathered products, more habitat, and less timber value add to harvests' acceptability.

Protectionists and non-aligned people disagree between regions about: wildfire risk (Tasmanians are more risk averse.), logger safety (Tasmanians are more concerned about safety.), and ground habitat (Tasmanians "load upon" it more because it varies more.).

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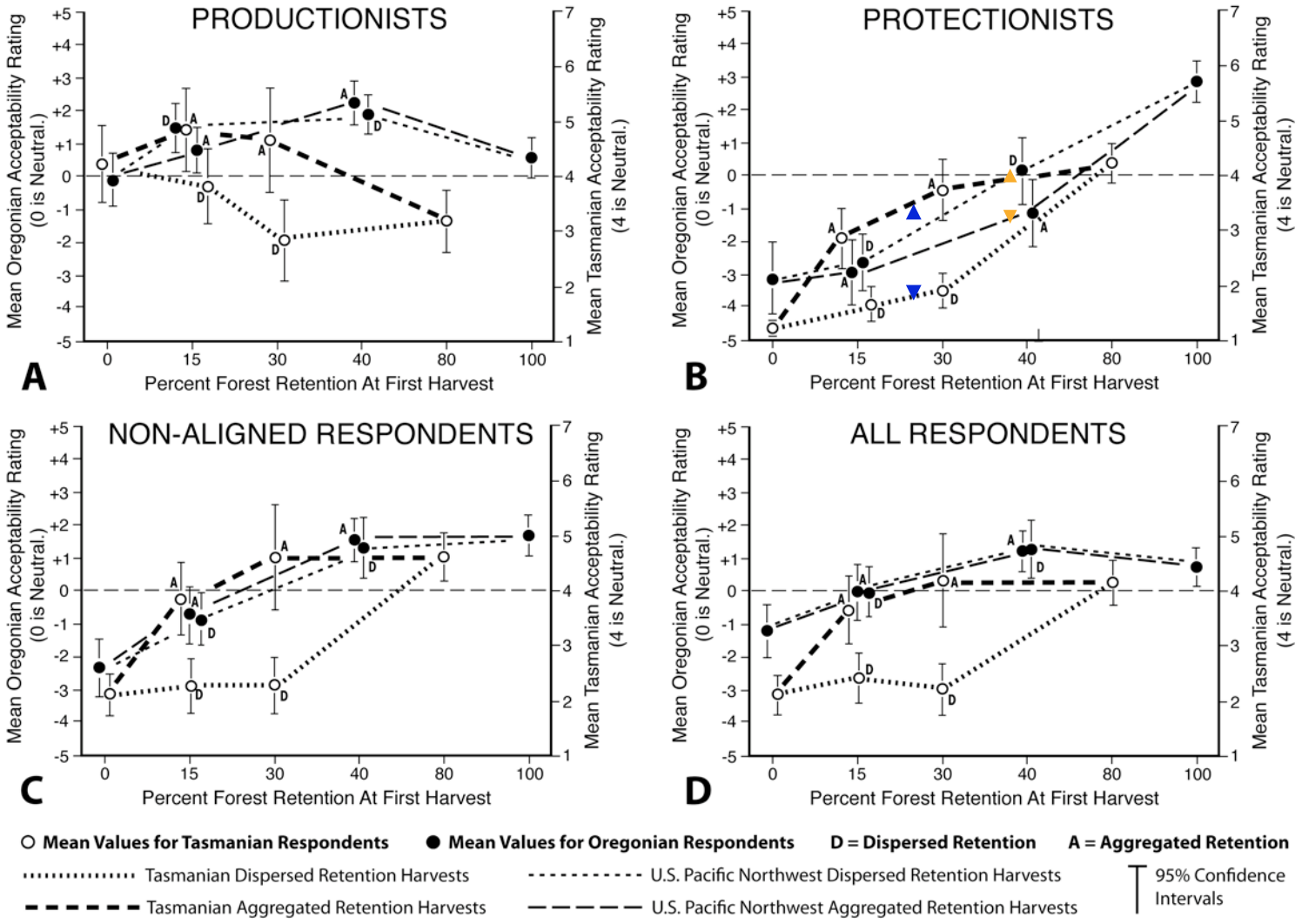
The acceptability of many harvest options is similar between regions.



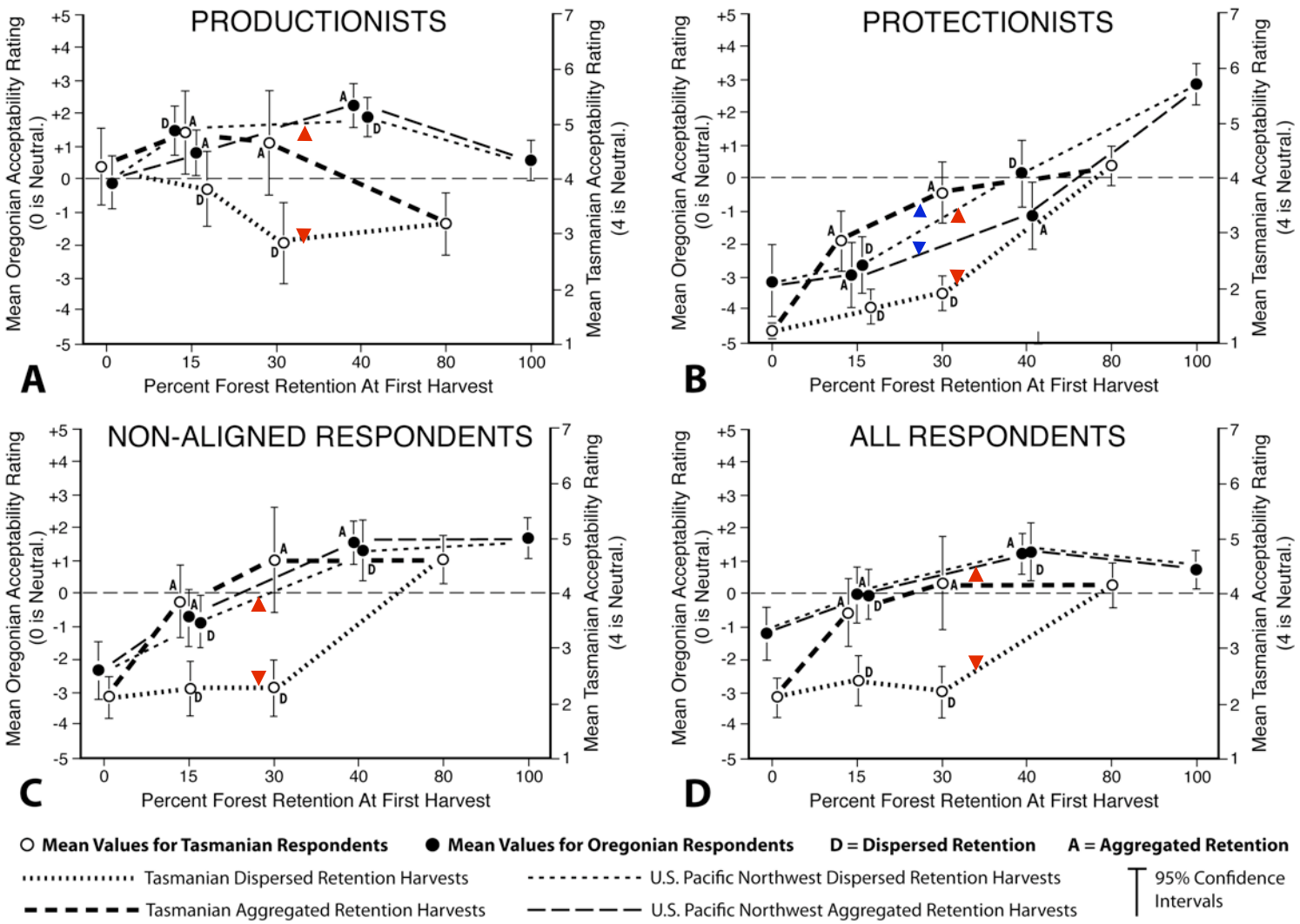
• Non-aligned people are in-between, just like overall averages.

• Overall averages are indifferent among all harvests, except for Tas. Disp. Ret.

• US-PNW productionists are indifferent to retention pattern & level. Tas. productionists prefer aggr. ret. (safety) and less retention.

• All protectionists like more retention. In Tas. they prefer aggr. reten. In US-PNW they prefer disp. reten. At 40%.

The acceptability of many harvest options is similar between regions.



Major disagreement between regions about acceptability of all dispersed retention harvests. Tasmanian dispersed retention harvests much less acceptable than in U.S. Pacific Northwest.

Significant disagreement among protectionists between regions about aggregated retention harvests. Tasmanian aggregated retention is more acceptable than US-PNW.

A FEW TAKE HOME MESSAGES:

• The values and perceptions of the two regions' populations are quite similar, even when broken down by attitudes toward forests.

• Differences in perceptions of harvests' acceptability derive mainly from differences in the design and impacts of harvests in response to local biological constraints and policy choices.

For example: US-PNW respondents value dispersed retention harvests more because while they similarly retain biodiversity as aggregated retention there, they look more like forests and move toward old-growth forests more quickly.

Tasmanian respondents value aggregated retention harvests more because they alone retain more biodiversity and especially more that like that of old-growth forests, and their dispersed retention harvests cut many more trees to look less like intact forests than do the corresponding harvests in the US-PNW.

• Differences in perceptions also derive from greater priority given to factors of more salience in each region.

For example, Tasmanians pay more head to logger safety and reducing wildfire risk because both these have been more problematic in that region.