

# Supplementary S2: Analysis output

## **Reduction of species identification errors in surveys of marine wildlife abundance utilising unoccupied aerial vehicles (UAVs)**

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### **Overview**

The objective of this study was to develop practical recommendations for reducing species misidentification probabilities when collecting, processing and analysing image-type data from unoccupied aerial vehicles (UAVs). This appendix presents additional results of the implemented models that we excluded from the final manuscript. The order of figures follows the statistical analysis script available in the supplementary material (Data S1).

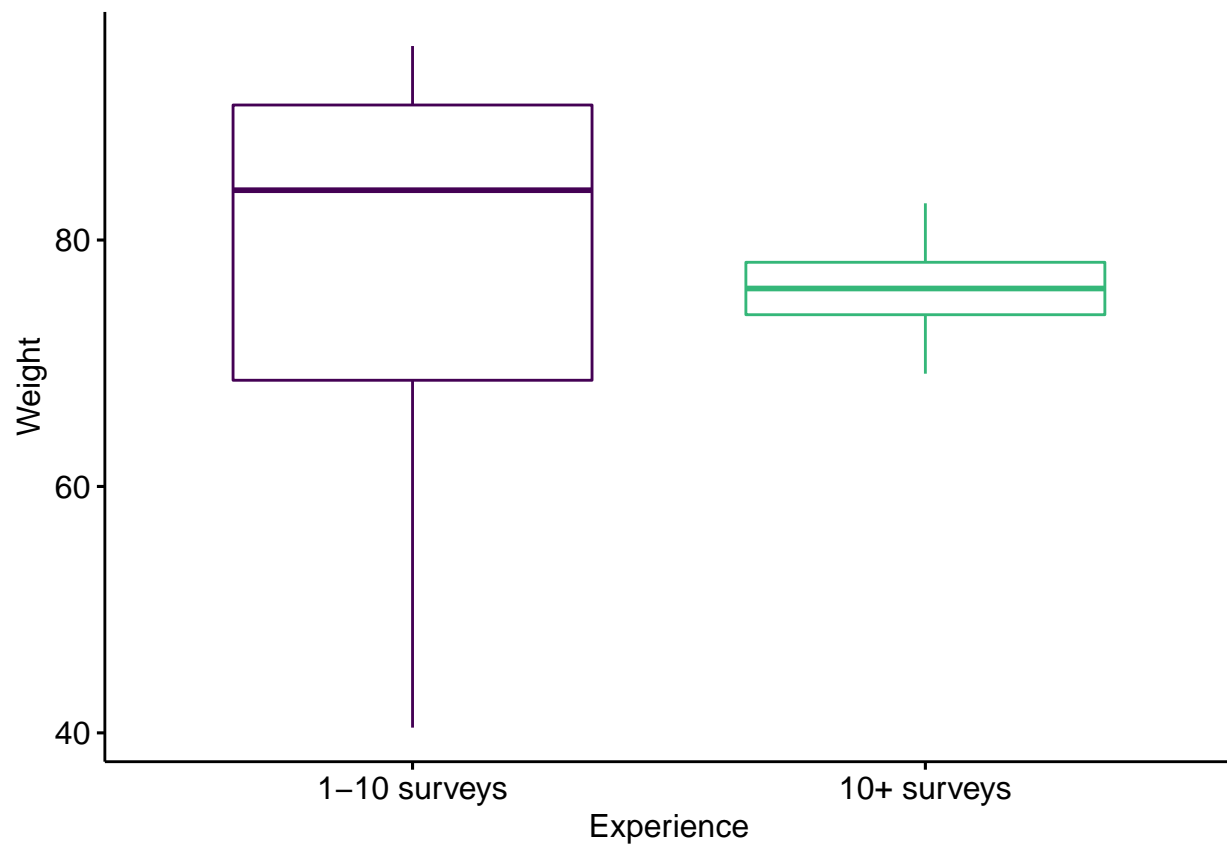


Figure S1: Proportion of correct selections per level of experience. Markers represent the weighted mean for each group. Box widths and error bars indicate the median values and standard deviations, respectively.

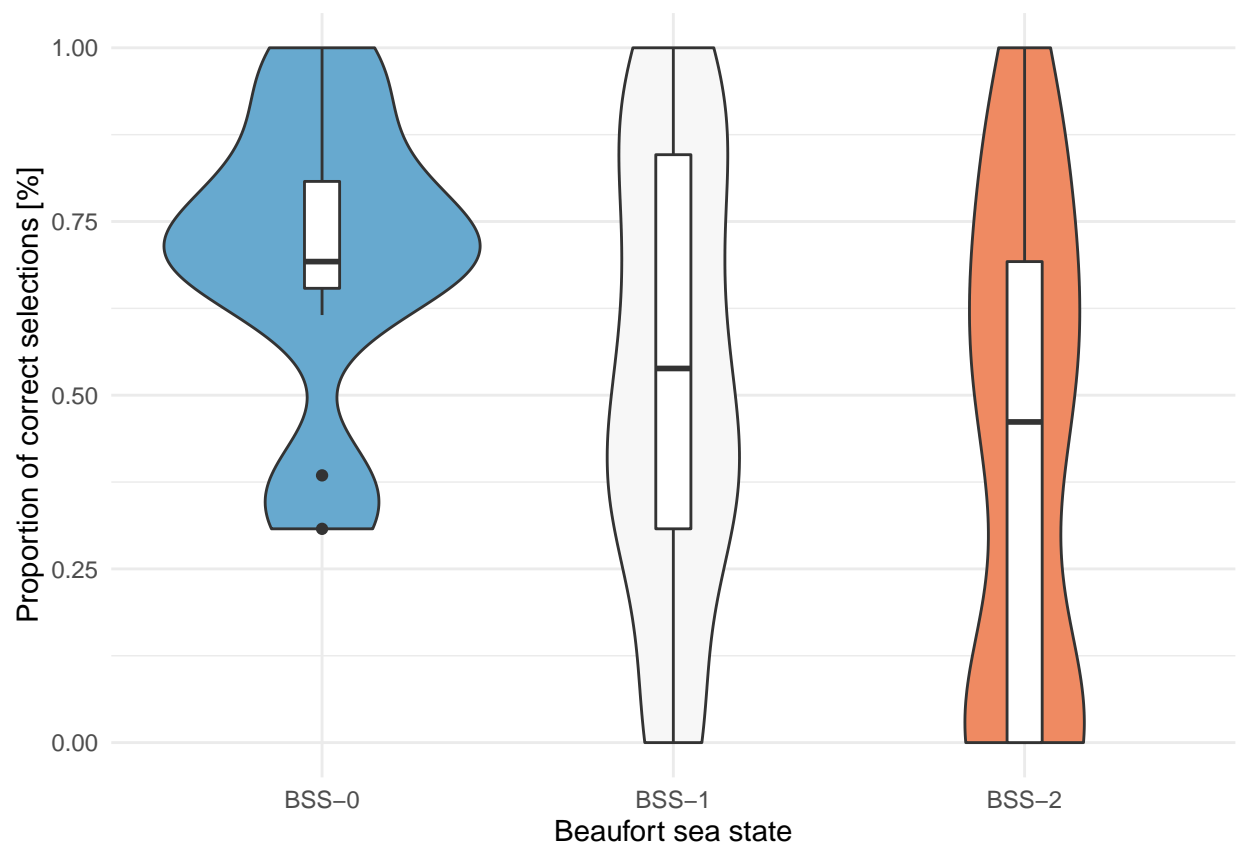


Figure S2: Effect of Beaufort sea state (BSS) on the proportion of correct selections across all data.

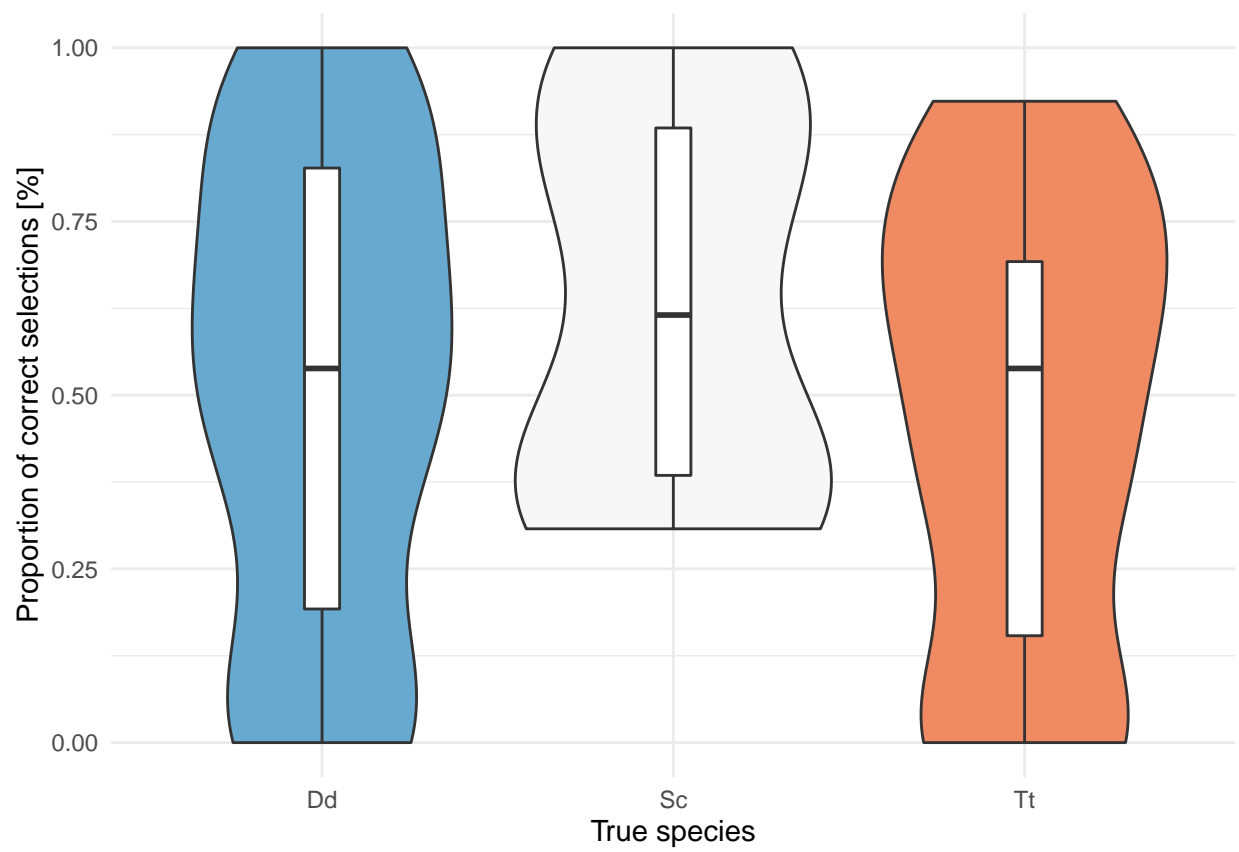


Figure S3: Effect of true species identity (ID) on the proportion of correct selections across all data.

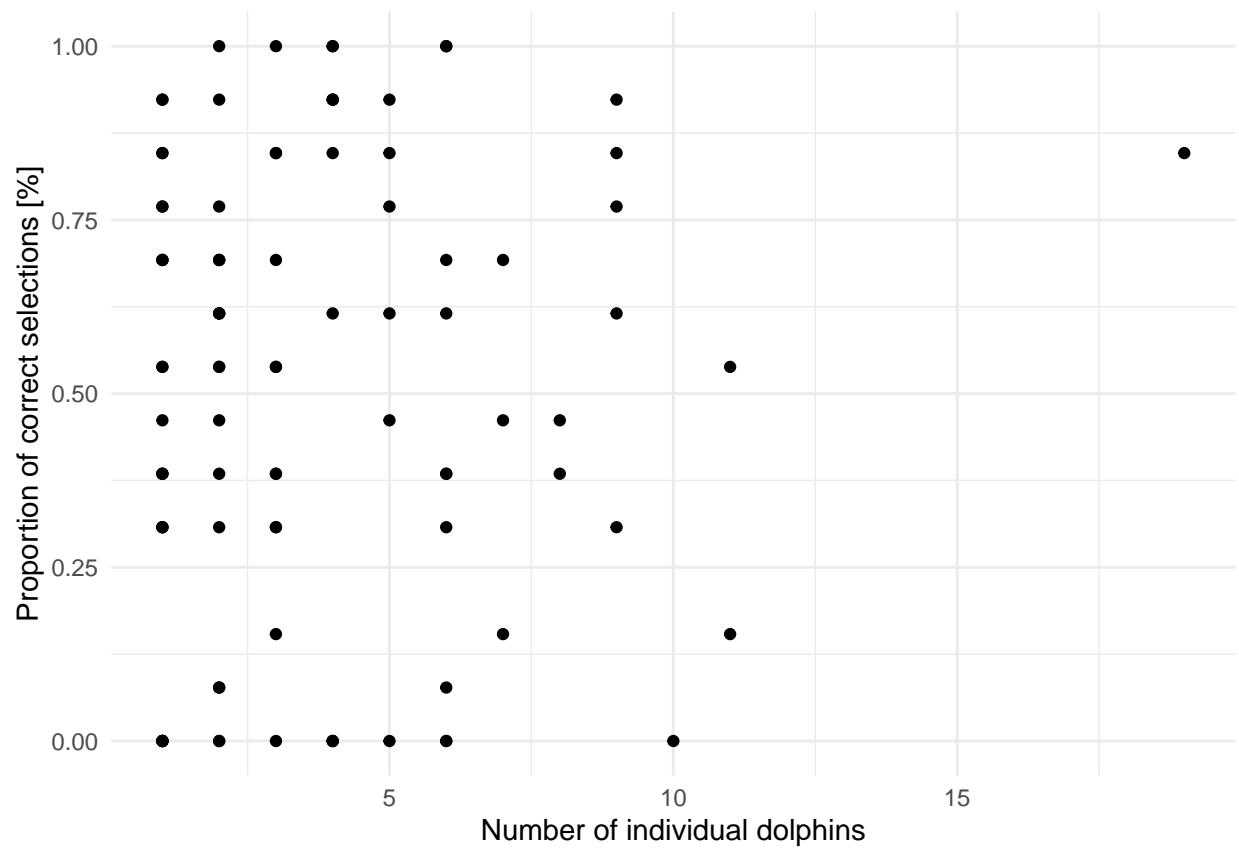


Figure S4: Effect of the number of individual dolphins (NID) on the proportion of correct selections across all data.

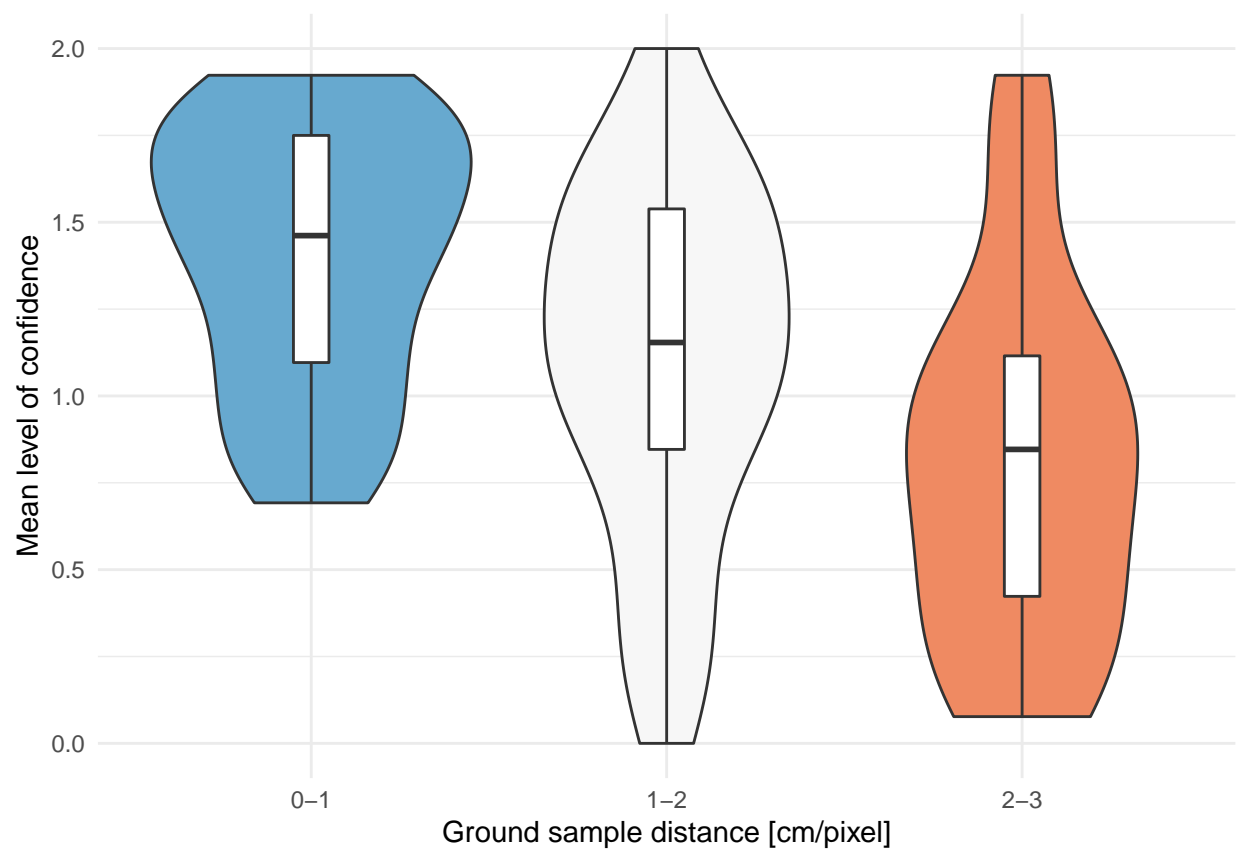


Figure S5: Effect of image resolution on the reviewers' mean level of confidence.

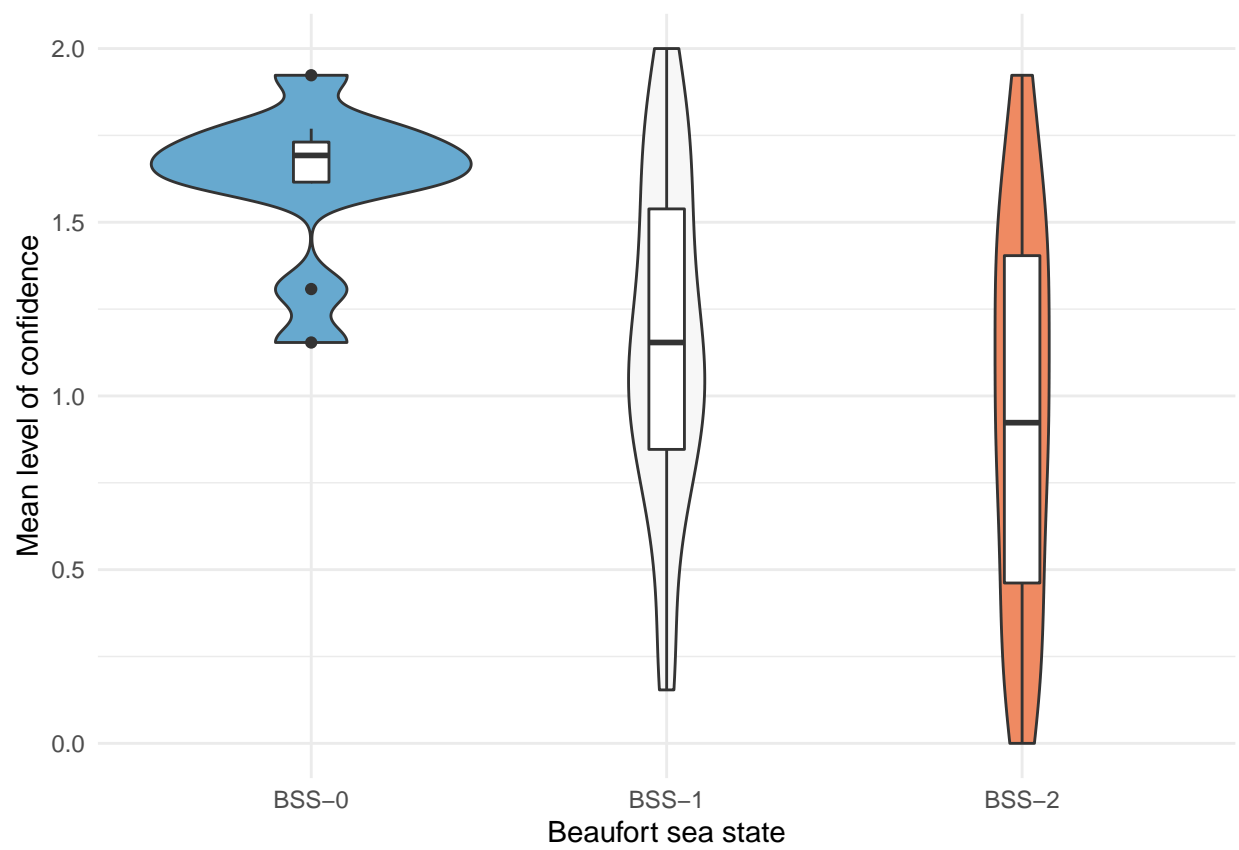


Figure S6: Effect of Beaufort sea state on the reviewers' mean level of confidence.

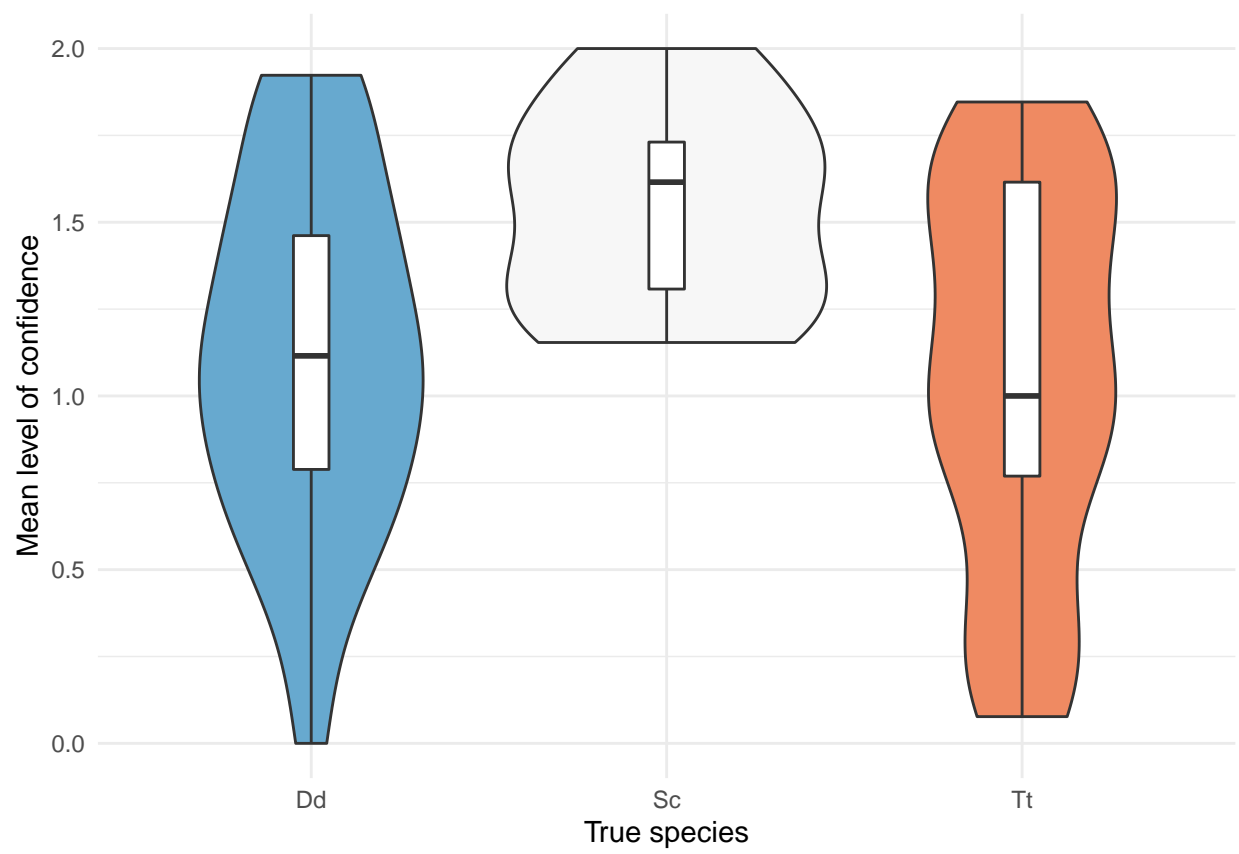


Figure S7: Effect of true species identity on the reviewers' mean level of confidence.





Figure S8: Effect of the number of individual dolphins on the reviewers' mean level of confidence.

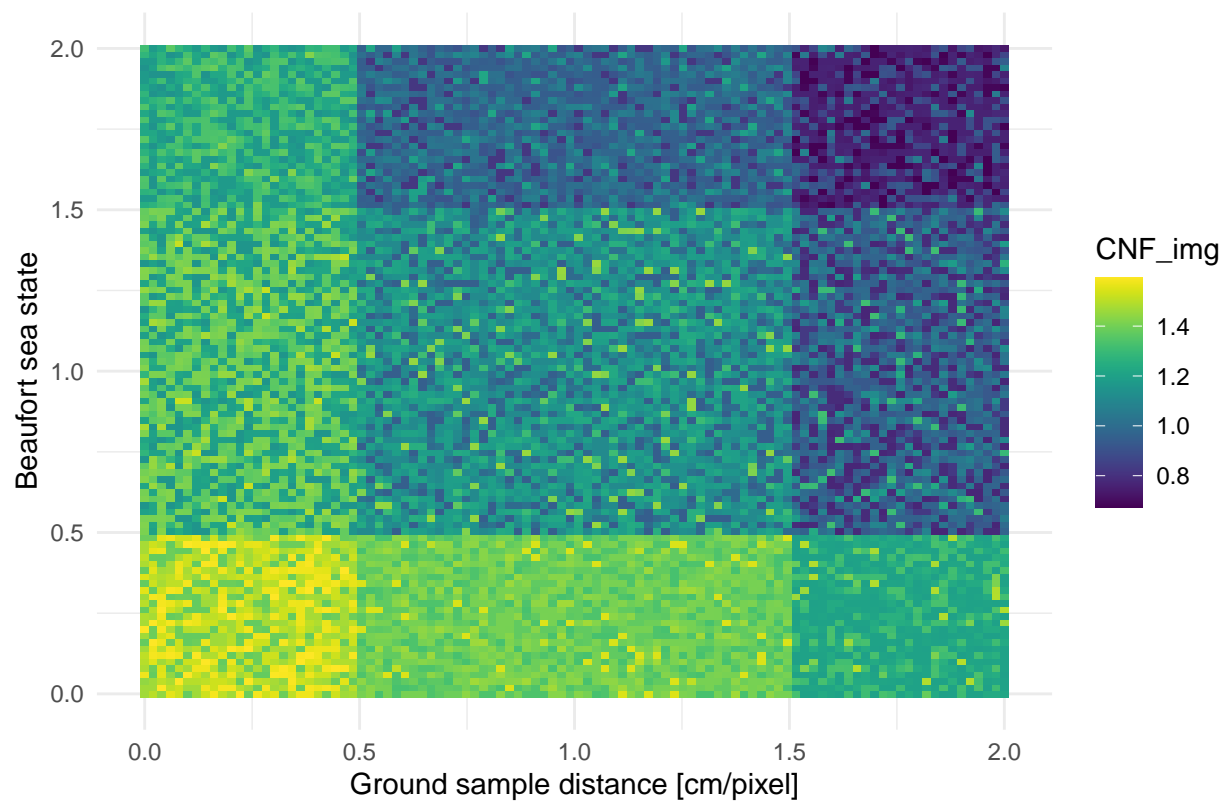


Figure S9: Interaction of ground sample distance (GSD) and Beaufort sea state (BSS) as predictors of the reviewers' mean level of confidence.

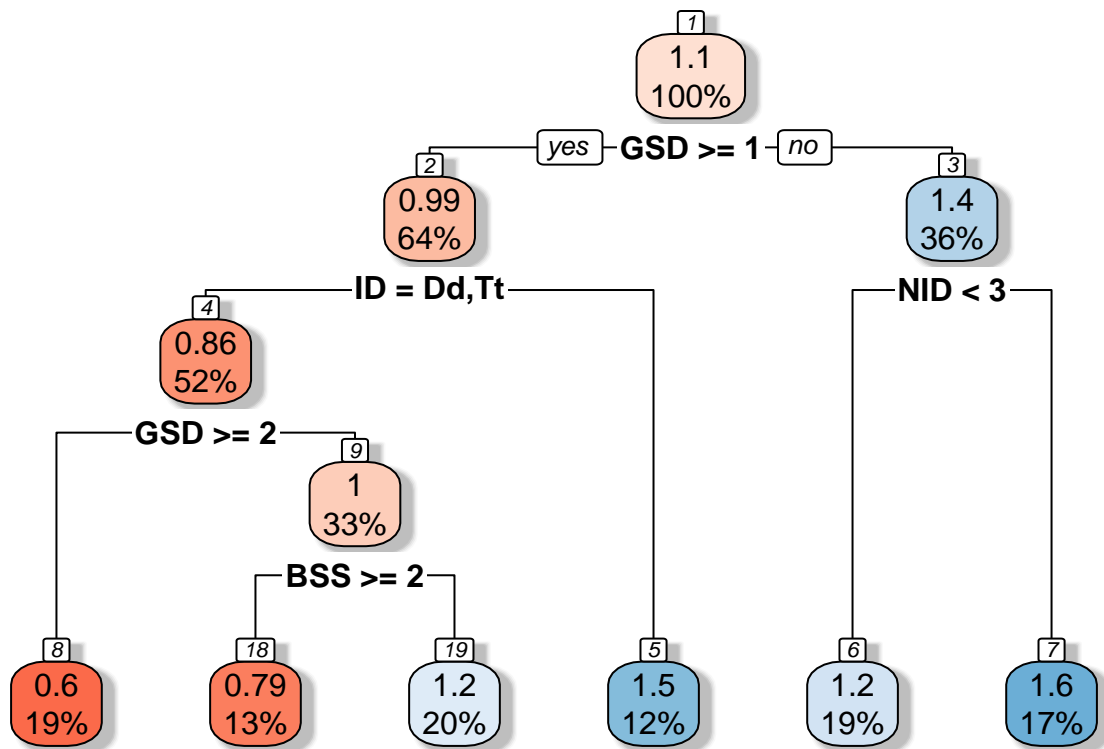


Figure S10: Hierarchy of image attributes affecting the reviewers' mean level of confidence.

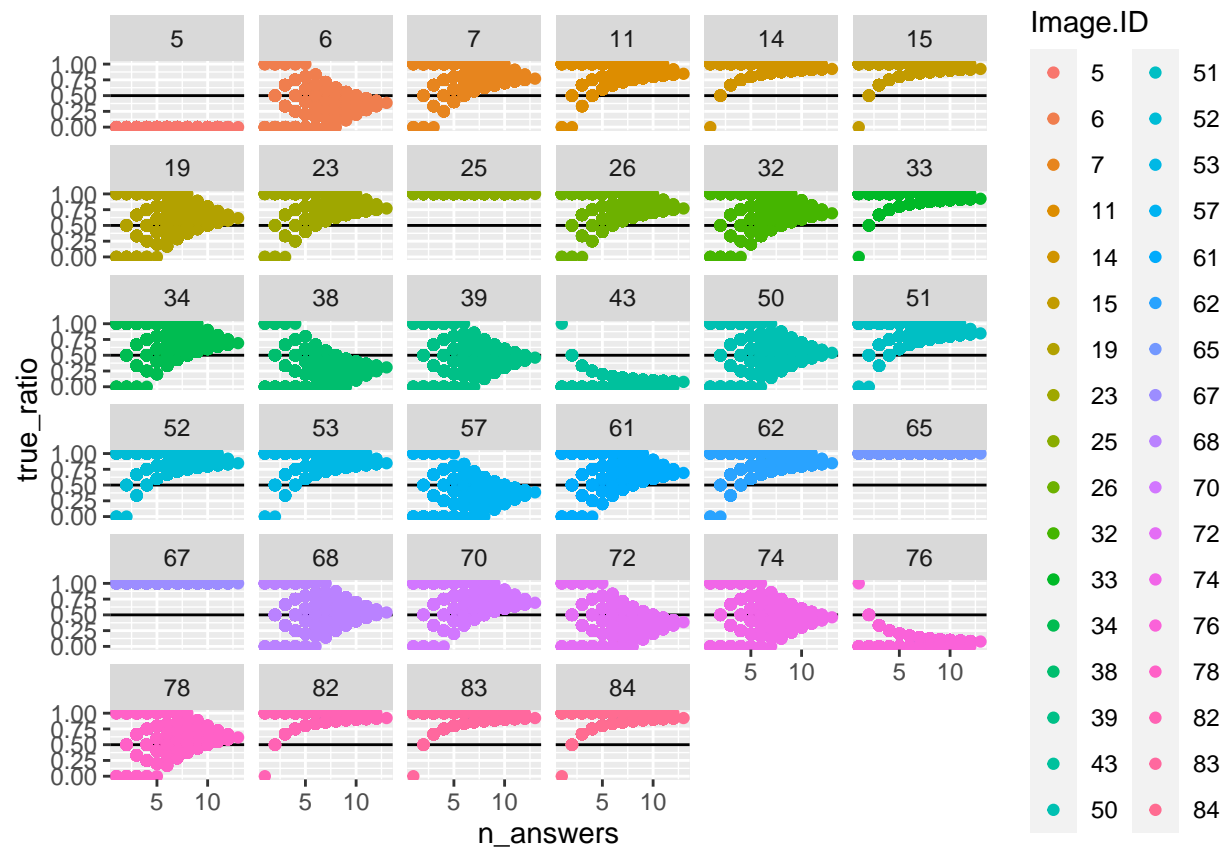


Figure S11: Proportion of correct selections per image for a ground sample distance (GSD) of 0-1 cm/pixel.

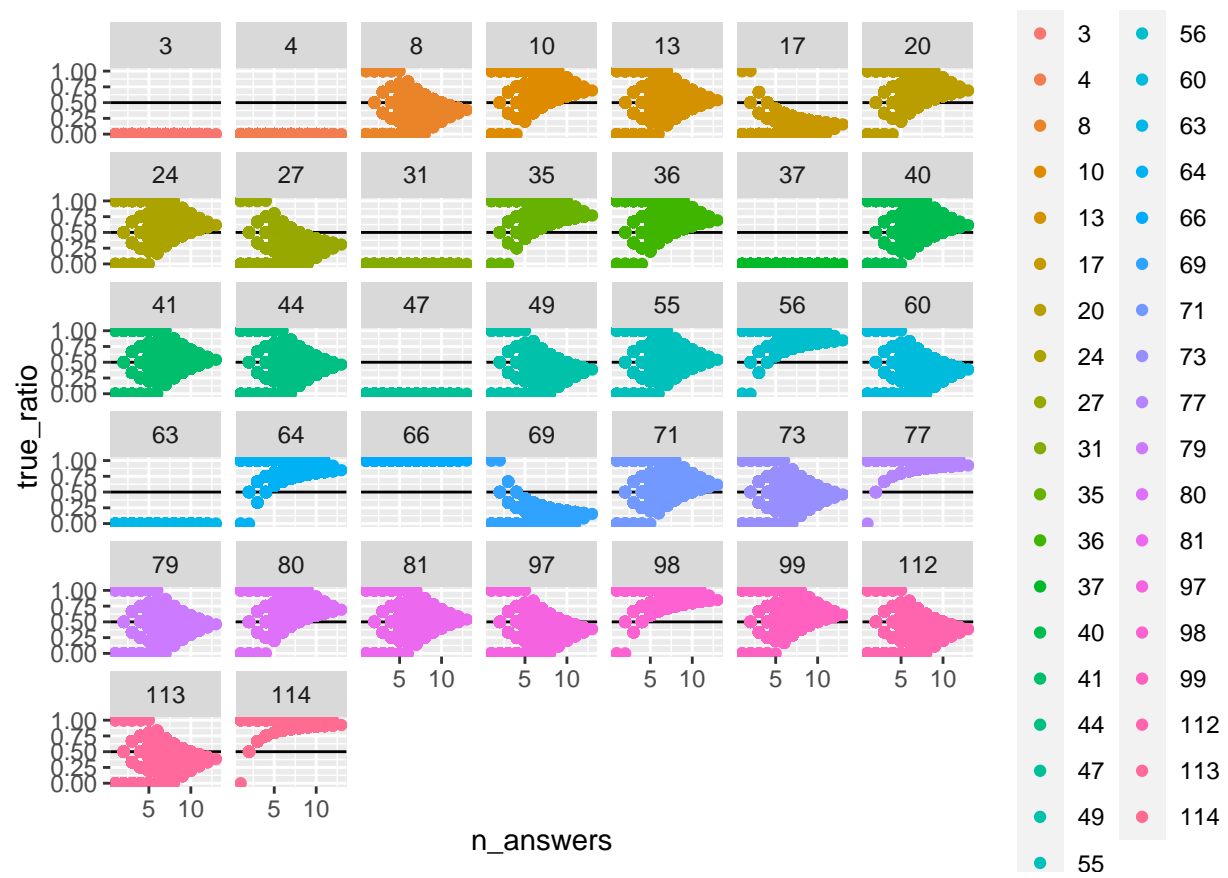


Figure S12: Proportion of correct selections per image for a ground sample distance (GSD) of 1-2 cm/pixel.

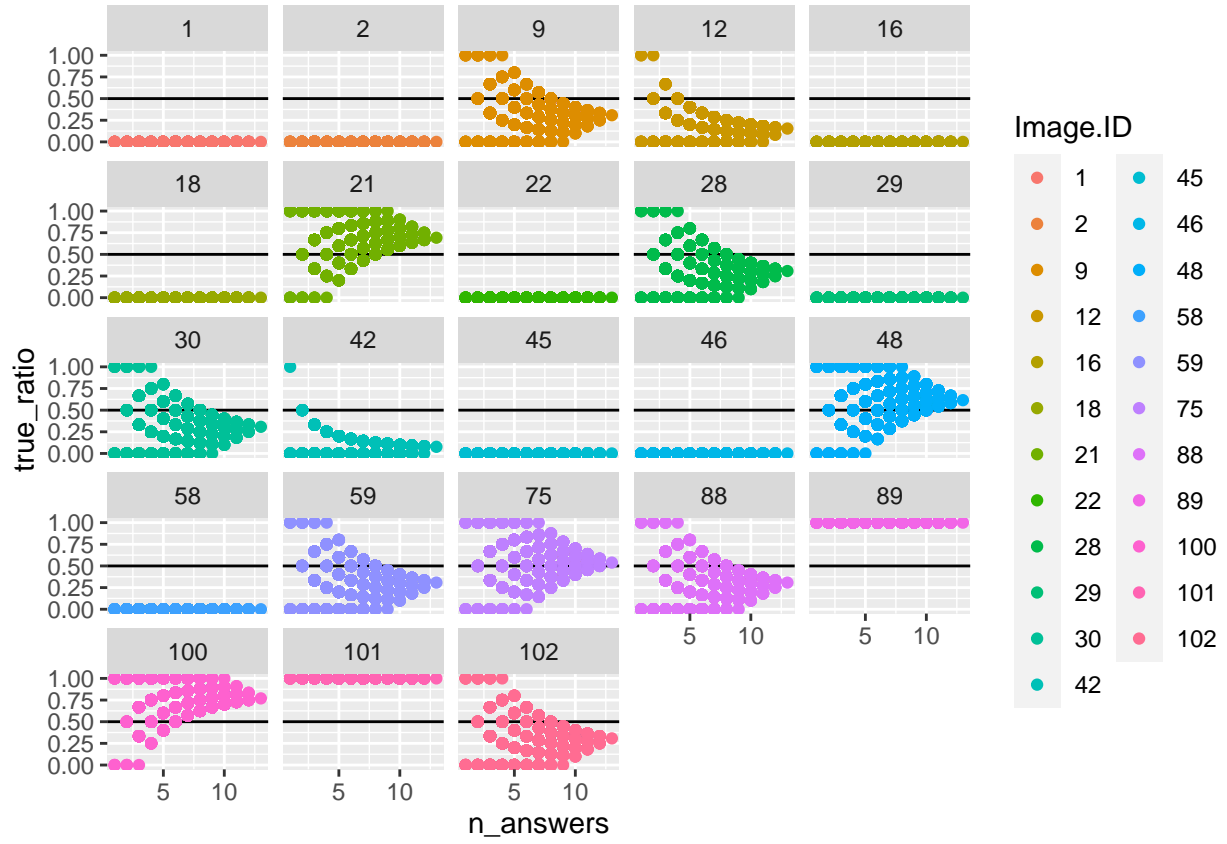


Figure S13: Proportion of correct selections per image for a ground sample distance (GSD) of 2-3 cm/pixel.

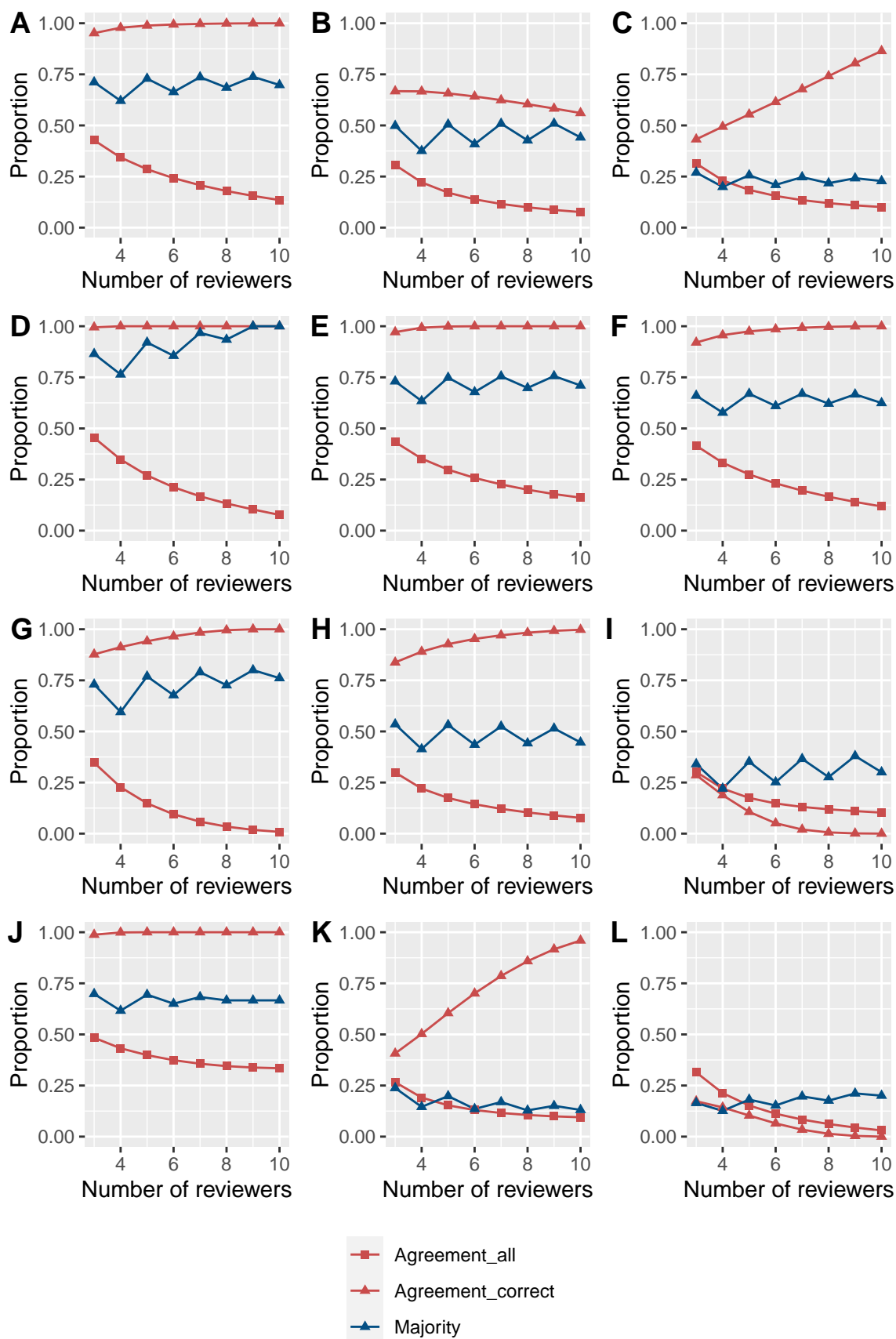


Figure S14: Agreement and majority-based identification accuracy as a function of reviewer group size.

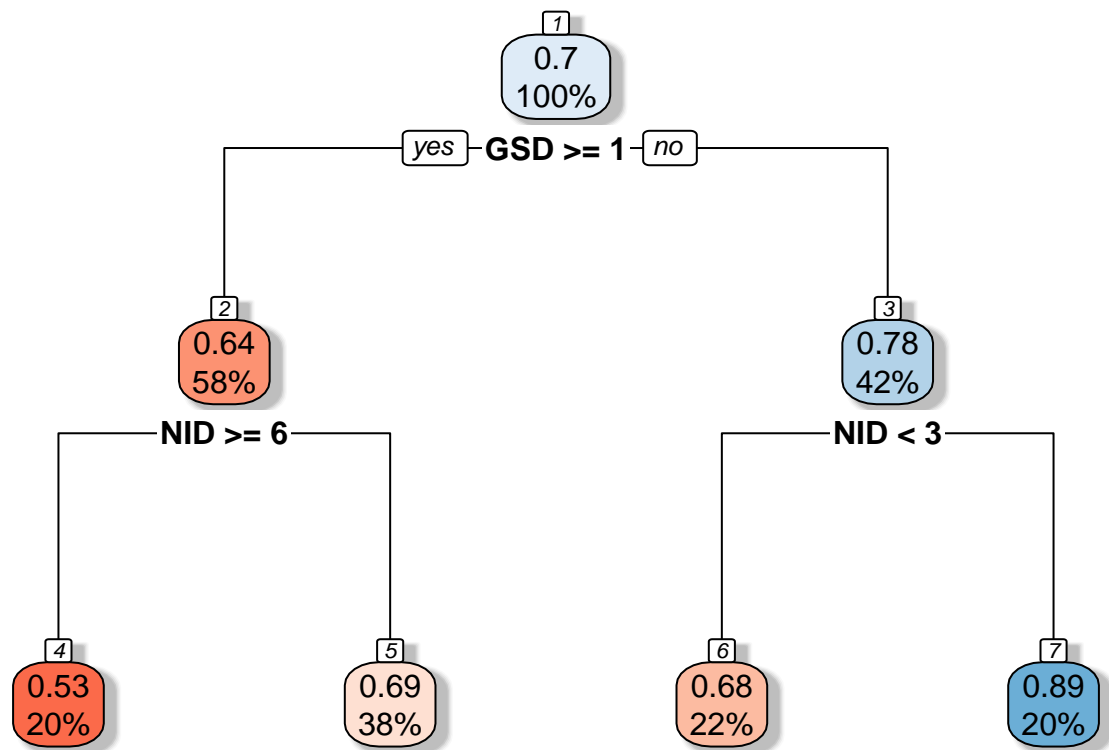


Figure S15: Hierarchy of image attributes affecting identification accuracy in the subset of high-confidence selections.



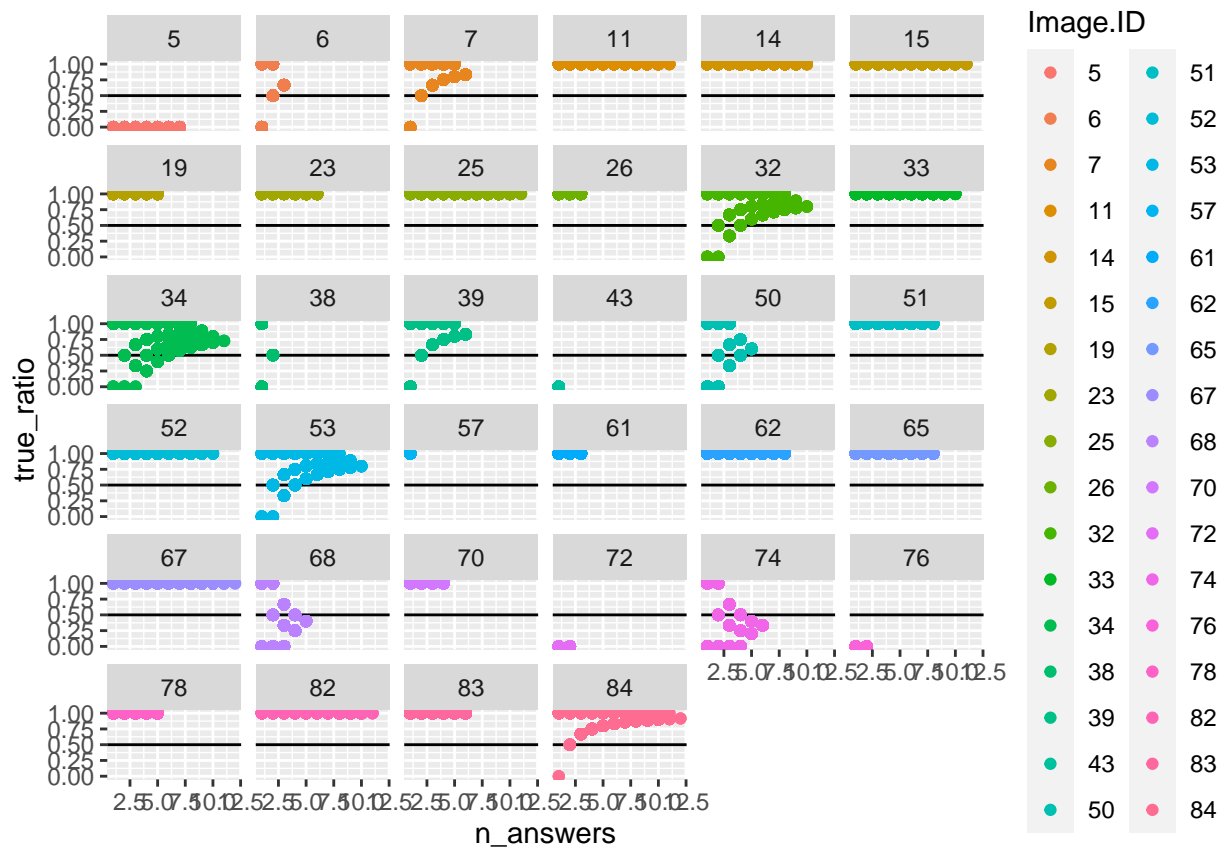


Figure S16: Proportion of correct selections per image for a ground sample distance (GSD) of 0-1 cm/pixel.