**Supplementary material 2**

Comparison of five diversity indices computed based on fishes recorded using DOV (Diver Operated Video) or SAUV (Semi-Autonomous Underwater Vehicle). Mean value (± standard error) of each index are displayed for each survey method. A generalized linear mixed model (GLMM) was used to compare method effect (DOV vs SAUV) and order in which assemblage recording was performed. Site and transect replicates were treated as a random factor (1|site) + (1|transect). Candidate models were compared to a null model [M0: ~1 + (1|site) + (1|transect)] and significant differences (noted *) were evaluated with maximum likelihood ratio tests ($\chi^2$, $p < 0.05$). Density and total biomass metrics were log transformed while species richness was exponentially transformed prior analysis to respect assumptions of GLMM. Best significant models are in bold.

| Metric | Mean | Model | df | AIC |
|---|---|---|---|---|
| **Density (indiv/100m²)** | DOV: 95 ± 9.24 | ~method × order | 3 | 168.52 |
| | | ~order | 1 | 169.57 |
| | SAUV: 89 ± 8.31 | ~method | 1 | 169.98 |
| | | ~method + order | 2 | 170.88 |
| **Total biomass (g/100m²)** | DOV: 3653± 332.4 | ~method × order | 3 | 177.69* |
| | | ~method + order | 2 | 178.96* |
| | SAUV: 4927 ± 473.8 | **~method** | **1** | **179.54*** |
| | | ~order | 1 | 184.44 |
| **Species richness (number of species)** | DOV: 28.4 ± 1.04 | ~method × order | 3 | 635.97* |
| | | ~method + order | 2 | 636.02* |
| | SAUV: 25.2 ± 0.95 | **~method** | **1** | **636.65*** |
| | | ~order | 1 | 640.59 |
| **Shannon index (on biomass)** | DOV: 9.6 ± 0.6 | ~method | 1 | 523.16 |
| | | ~method + order | 2 | 525.14 |
| | SAUV: 8.4 ± 0.5 | ~order | 1 | 526.47 |
| | | ~method × order | 3 | 526.67 |
| **Pielou's evenness (on biomass)** | DOV: 0.68 ± 0.015 | ~order | 1 | -11.30 |
| | | ~method | 1 | -10.17 |
| | SAUV: 0.68 ± 0.018 | ~method + order | 2 | -9.40 |
| | | ~method × order | 3 | -7.49 |