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**Developing a sampling scheme to evaluate Norwegian marine recreational fisheries - a case study in the Oslofjord**

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Marine recreational fishing is very popular in Norway, but little is known about catches, socio-economic impacts, or human dimensions. Norway's marine recreational fishery is extremely diverse, as both rod-and-line and passive gears (e.g. longlines, fishing pots, and gill nets) can be used. Moreover, anyone (i.e. residents and tourists) can fish without a license, and there are no defined access points, meaning that fishing trips can start from virtually any point along Norway's 25 000 km coastline. Thus, surveying this fishery is difficult and requires a combination of various approaches. To test different on- and off-site sampling techniques, three multi-stage survey methods were used to sample recreational fishing in the Oslofjord. A telephone screening survey was used to identify and recruit recreational fishers to log their catches in diaries. A sub-sample of the recruited diarists was followed up on a regular basis via telephone (memory jogger approach). In addition, a roving creel survey was conducted during the summer months to collect biological data on catches, and data on socio-economics and human dimensions (e.g. attitudes towards C&R and some management regulations) through face-to-face interviews. The roving creel survey was supplemented by a web-based survey distributed among the intercepted recreational fishers in the field. This study provides important information and methodology towards developing effective and sustainable fisheries management in the Oslofjord, and contributes to designing a larger scale national survey on marine recreational fisheries in Norway.

**Keywords:** Recreational fishing, fisheries management, survey design, telephone survey, roving creel survey, human dimensions

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