# CITIZEN SCIENCE APPROACH TO IDENTIFYING MISLABELLING IN THE FISH SECTOR: STUDY DESIGN AND POTENTIAL IMPACT IN RESTAURANTS

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Seafood is the most traded food commodity in the world and its production has been steadily growing over the last decades. In fish trading, it has been repeatedly recognized that the use of common names or commercial designations to describe various fish types can hamper consumer choice, since this groups together species for sale that have markedly different prices. In this global chaos, the utilization of both locally and internationally recognizable names in fish product labeling must be officially taken into consideration to ensure traceability in the fish chain. In addition, mislabeling and erroneous identification of fish catches, or their geographical origin, is one of the factors involved in underreported catches from specific stocks and could threaten the sustainability of fisheries, therefore contributing to the depletion of fishery resources, or even the eventual extinction of the overexploited species. The identification of fish is mandatory in t he European Union, as stated in the Council Regulation (EC) No 1379/2013 of 11 December 2013 on the common organization of the markets in fishery and aquaculture products, amending Council Regulations (EC) No 1184/2006 and (EC) No 1224/2009 and repealing Council Regulation (EC) No 104/2000. These regulations require that fish labels indicate the complete scientific and commercial name of the species without inducing errors. Recent studies have stated that the average percentage of reported misdescription is 30%. In general, incidents in restaurants and takeaways are much more common than in supermarkets and retailers. However, specific studies should be conducted to confirm it because about 10% of samples were obtained from restaurants. Such an undertaking requires an enormous effort that can be faced with the support, in whole or in part, by amateur or nonprofessional scientists as collectors and that is exactly what we have done in the present study which is the first of i ts kind for Europe. To date, we have collected approximately 400 fish samples from 250 restaurants in 17 European countries taking advantage of the participation of citizens. The first part of this study was to establish a representative sample size from different regions to obtain a statistically significant study with the less margin of error. Later on, samples will be analyzed by sequencing (PCR-FINS) to identify the fish species and to evaluate the percentage of misdescription in this important sector.

**Keywords:** fish species, misdescription, restaurants, PCR–FINS

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