Obtaining and cataloguing ageing structures, preparation methods, storage and inventory

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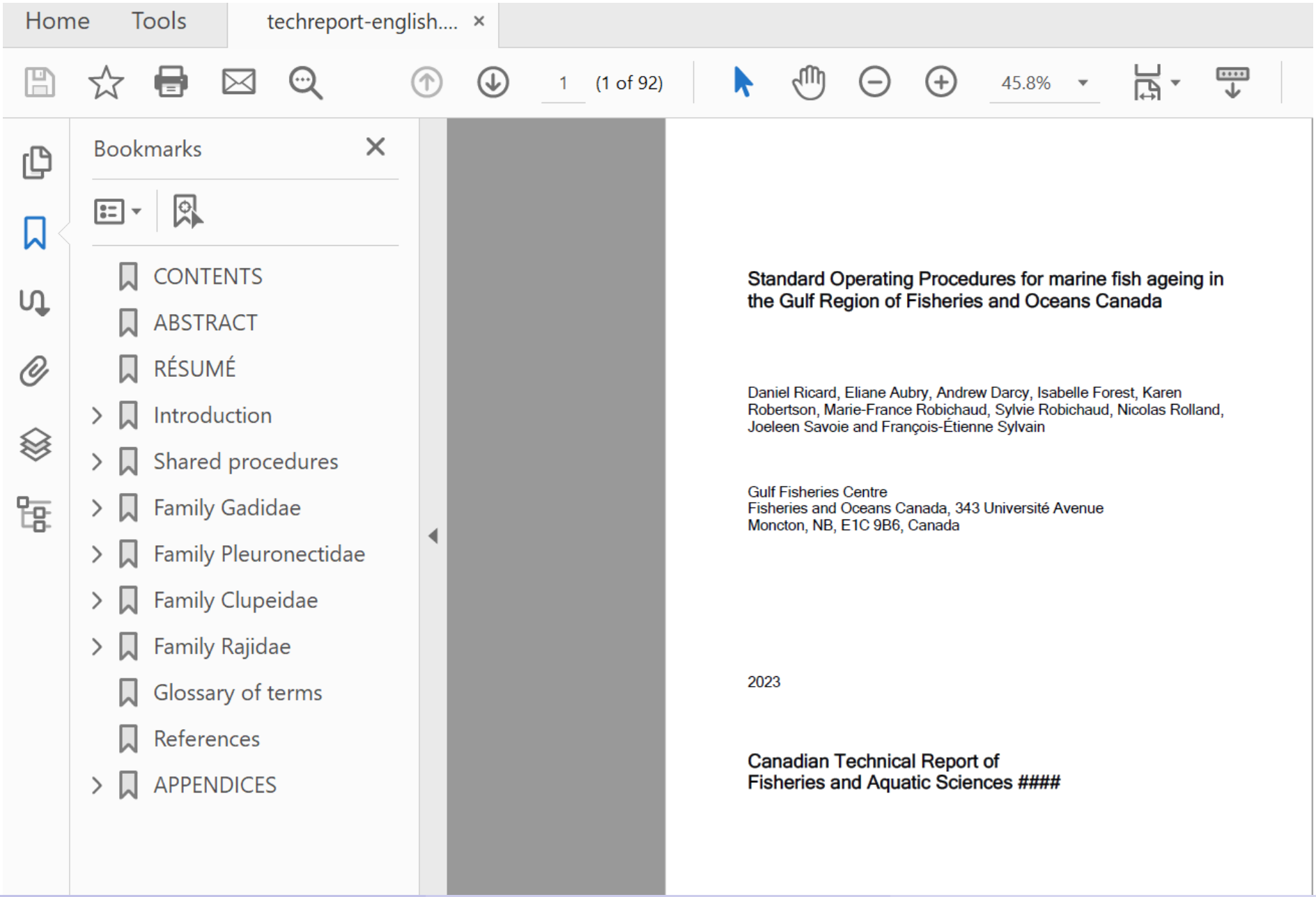
2023-01-31 - TESA Workshop

Standard operating procedures



Obtaining ageing structures

- Samples from commercial landings
  - Port sampling
  - At-sea observers
- Samples from research surveys
  - Length stratified sampling
  - Sex and length stratified sampling

Cataloguing

- Procedures to identify the otoliths that are collected
- Maintain the unique identity of each otolith through the documentation of its source, date collected, fish species, fish length, ...
- Ideally, storage of information in a database

Preparation

- Cleaning
- Polishing
- Mounting in epoxy resin
  - Clear resin
  - Opaque resin
- Mounting on wax
- Mounting on microscope slide
- Crack and burn
- Sectioning
  - Saws, noise and dust
- Imaging (more on that tomorrow)

Storage

- Ideal situation - Central quality-controlled environment with archival level documentation of physical samples - No deterioration of physical otoliths - Maintain the readability of otoliths
- Reality - Hapzard collections of different ageing structures located in a number of places, and with varying levels of documentation - Storage in glycerin that deteriorates otoliths in the longer term

Inventory of otolith collections

- OpenData and FGP datasets as a starting point
- write a metadata record for each "otolith collection"
- the dataset shared in the public domain is the summary of physical otoliths in the collection
- by also adding the number of otoliths that have been aged, the "git diff" on the OpenData dataset represents a progress report of sort
- Gulf Region otolith collections on dmapps
  - 4T American Plaice on dmapps, on OpenData and on FGP
  - 4T Atlantic Cod on dmapps, on OpenData and on FGP
  - 4T White Hake on dmapps, on OpenData and on FGP
  - 4T Yellowtail Flounder on dmapps, on OpenData and on FGP
  - 4T Winter Flounder on dmapps, on OpenData and on FGP
  - 4RST Witch Flounder on dmapps, on OpenData and on FGP

Thoughts and discussion