Improving fish welfare in recreational angling

Applied measures and future potential

A contribution from the Flemish association for recreational anglers

D. Bral- Editor in chief for ‘Hengelsport’
Sportvisserij Vlaanderen vzw

Founded in 1979 - Non profit organization

Mission

- Promote, defend & protect interests of the Flemish anglers
- Organization & coordination (club, national and international) angling competitions
- Advice and support in fish stock management & fish pond management
- Act against: litter & pollution, declining fish stocks, commercial overfishing
  habitat degradation, poaching and fish theft, spread of diseases and parasites,…

Recognitions

- 1980: Flemish Sports Federation by Sport Vlaanderen (formerly BLOSO)
- 2002: Organization for Sporting Leisure Activities (O.S.V.) by the Flemish Community. Member of the ‘animal sports cluster V.C.H.H.D. vzw
A broad range of strategies to improve fish welfare.

Individual level
- Indirect measures
- Direct measures

+ Ecosystem level
- Short term actions
- Long term engagement- ambition
Indirect measures on individual level (fish & angler)

- **Informing members:**
  - Magazine
  - Special publications: Environmental guides – codes – fishing guide for children
  - Social media

- **Promote Best angling practice (guides)**
  - Code for recreational competition angling (2008)
  - General code for members (2017)
Indirect measures on individual level (fish & angler)

- **Promote Catch & Release (C&R) = management tool – legislation**
  - Long-term survival rate (90%)
  - Mortality related to ‘low effective skill level’ in anglers...
    

- **Participation** in scientific research (VLIZ, ILVO, UGENT,...)
  - Data for future legislation
  - Sustainable fishery (ecological, economical & social point of view)
    
    o [https://www.harteresearchinstitute.org/project/center-sportfish-science-and-conservation](https://www.harteresearchinstitute.org/project/center-sportfish-science-and-conservation)
    o [https://www.sportfishcenter.org/research](https://www.sportfishcenter.org/research)
Strategies on individual level (fish & angler)

II. DIRECT MEASURES
A. Tools-materials

Landing fish
  - Landing net
  - Boga grip
A. Tools-materials

Unhooking fish

- Use the right tool for the job?!
- Save precious time
A. Tools-materials

Unhooking fish

- Unhooking mat & carp cradles
  - avoiding contact with hard surface (ground)
  - permanently hydrated (skin & gills)
  - oxygen circulation
  - reduces stress level (flap)
A. Tools-materials

Barotrauma

- **Deventing tools:** (expert level - skill)

- **Descender devices:** effective & quick >>
  - [https://www.youtube.com/watch?v=emHm8UWsXnE](https://www.youtube.com/watch?v=emHm8UWsXnE)
  - [https://www.seaquallizer.com/](https://www.seaquallizer.com/)

- Legislation: US!
B. Techniques-tactics:

- Handle fish (wet hands - don’t use dry towel/nets/etc.)

- Hook type & size (selectivity)
  - Barbless hooks or micro barbs (less tissue damage - bleeding/infection)
  - Single hook inst. triple hook (lures)
    https://www.youtube.com/watch?v=KPLgGT8Tw_s
  - Circle hook (corner mouth)
    https://www.youtube.com/watch?v=y48z3WGQteG

- Quick release rigs (use of smaller hooks)
  https://releaserigshop.com/

- Safety-lead clip (fishing near obstacles)
  https://www.youtube.com/watch?v=opuXx1BZmr4

- Revival time & water flow across gills
  - Move forward or side to side (IAW natural behaviour)
  - Don’t pull fish backwards (stress)
  - Time reorientation
C. Desinfection & skin sealant

- Wound healing: (skin & soft tissue damage) prevent secondary infections
  - A common practice in carp angling (Alan Blair, Nash Tackle, demonstrating the Medicarpcare kit)

https://www.youtube.com/watch?v=g879inZQWK8

D. Decontamination
prevent spreading bacteria – parasites – viruses to other ecosystems through used nets/mats/cradles.
Angler skill level = most important factor for survival rate in released fish!

- avoid deep hooking (experience)
- use common sense (think before you act)
- scientific research on C&R methods (R&D)

https://www.youtube.com/watch?v=igQGNFaKt2o
Summary: Strategies on individual level (fish & angler)

II. DIRECT MEASURES

A. Tools-materials
B. Techniques-tactics:
C. Disinfection
D. Decontamination
E. Angler Skill level
Ecosystem level

- **Stewardship**
  - Volunteers
  - First training day 11/12/2019 Ghent!
  - Social controle - discouraging effect
  - Service contracts (maintenance of spawning beds)-ANB-PVC

- **Opportunities**
  - Participation in fish stock - & ecological management
  - Act against illegal commercial fishing - poaching
  - Visual inspection - early detection
    - pollution/oxygen depletion/algae bloom/sudden fish kill/
  - Invasive plants - animals (giant hogweed *Heracleum mantegazzianum* - pumpkinseed *Lepomis gibbosus*)
  - ....
Challenges & opportunities

- **Steward project** – expansion
  - Pinpoint ‘black spots’ for law enforcement & nature inspectorate

- **Increase skill levels**
  - Specific codes (guides) & education

- **Involvement in scientific projects**
  - Eliminate prejudices >> open communication

- **Legislation**
  - Catch & release
  - Eliminate differences
    - European seabass
    - Sea & coastal water: 1\(^{ste}\) April – 31\(^{ste}\) October
    - River-inland: 1\(^{ste}\) July – 31\(^{ste}\) December
!Thank you for your attention!
Reference list photos:

Slide 7: photo left:
https://encrypted-tbn0.gstatic.com/images?q=tbn%3AANd9GcQPnnbpAor_MMk4FpVtOHh8QcTxltQ6aDhk-TIvlvVvyhBU3yGkR

Slide 7: photo middle:

Slide 8&14, foto F1:
- http://4.bp.blogspot.com/-FRY1F0-7QbA/TVShXpBv9YI/AAAAAAAAA0M/j4wNXXN_hLE/s1600/variety+of+dehookers.jpg

Slide 10, foto F2:
https://www.researchgate.net/profile/Craig_Boys/publication/268078954/figure/fig1/AS:614152393457664@1523436749401/Barotrauma-injury-in-adult-fish-and-can-occur-following-offshore-angling-or-after.png