

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)
- ✓ 1993: **Association active in fauna management** by the Flemish Nature Administration.
- ✓ 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...

(Stunz, Gregory & Mckee, David. (2006). Catch-and-Release Mortality of Spotted Seatrout in Texas.)

► **Participation** in scientific research (VLIZ, ILVO, UGENT,...)

- Data for future legislation
- Sustainable fishery (ecological, economical & social point of view)

- <http://www.catch-and-release.be/fs-woordje-uitleg/>
- <https://www.hartheresearchinstitute.org/project/center-sportfish-science-and-conservation>
- <https://www.sportfishcenter.org/research>

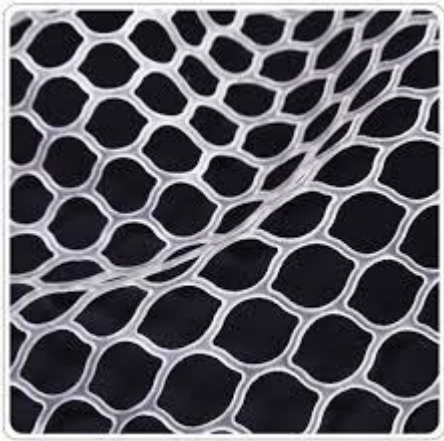
Strategies on individual level (fish & angler)

II. DIRECT MEASURES

A. Tools-materials

Landing fish

- Landing net
- Boga grip



© Sportvisserij Vlaanderen vzw

A. Tools-materials



Unhooking fish

- ❑ Use the right tool for the job?!
- ❑ Save precious time



© Alijn Danau-VBK



© Alijn Danau-VBK

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)

- [http://www.alabamawildlife.org/uploadedFiles/Fish%20Venting3%20\(1\).pdf](http://www.alabamawildlife.org/uploadedFiles/Fish%20Venting3%20(1).pdf)

- ▶ **Descender devices:** effective & quick >>

- <https://www.youtube.com/watch?v=emHm8UWsXnE>
- <https://www.seaqualizer.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>



©Nash Tackle

D. Decontamination

prevent spreading bacteria – parasites – viruses to other ecosystems through used nets/mats/cradles.



© CID Lines

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

F1



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: 1ste April – 31ste October
 - ▶ River-inland: 1ste July – 31ste December

!Thank you for your attention!

Reference list photos:

Slide 7: photo left:

https://encrypted-tbn0.gstatic.com/images?q=tbn%3AANd9GcQPnnbpAor_MMk4FpVtOHh8QcTxltQ6aDhk-Tlv3VvyhBU3yGkR

Slide 7: photo middle:

https://cdn11.bigcommerce.com/s-pr9amv4/images/stencil/500x659/products/35995/45763/boga_grips__84205.1454534459.jpg?c=2&im_bypass=on

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