Typha minima and Myricaria germanica conservation in Italy: focus on Italian NW Alps

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(1): CIRF : CENTRO ITALIANO PER LA RIQUALIFICAZIONE FLUVIALE (ITALIAN CENTER OF RIVER RESTORATION)
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CONTENTS:

- Natura 2000 sites in Italy and focus in Piedmont region
- collaboration in Interreg programs with CBNA of Gap-Charance
- populations of Typha minima in Italy and focus in Piedmont region
- populations of Myricaria germanica in Italy and focus in Piedmont region
- some conservation and management problems
- opportunities and perspectives

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NATURA 2000 NETWORK IN ITALY

19.2% of Italian territory

M = Abruzzi: 35%; m = Emilia R.: 14%

Manuale Italiano di interpretazione degli habitat della Direttiva 92/43/CEE
Italian Interpretation Manual of the 92/43/EEC Directive habitats

http://vnr.unipg.it/habitat/

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NATURA 2000 NETWORK IN PIEDMONT REGION

- 142 sites (123 SIC, 51 ZPS) with 32 SIC = ZPS
- about 400,000 ha (16% of regional territory)
- 60 community interest habitats (of which 11 prior)
- 112 species of II - IV.
  Dir. Hab. annexes

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FROM THEORY TO PRACTICE IN PIEDMONT:
AN INERTNESS HISTORY

1992: HABITAT DIRECTIVE launch

2000-2010: editing of earliest management plans
(without participation of territories and populations)

2009: proposal of regional conservation measures for habitats and species

2014: management plan approved = none
consequently no EC money from PAC measures and probable infraction procedure

2015: only 1 management plan approved

2016: definitive site-specific conservation measures approved

June 2016: 5 management plans approved

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INTERNATIONAL EXCHANGE PROGRAMS: TOWARDS COHERENT DATA BASE IN WESTERN ALPS

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A COMMON PRODUCT:
RARE AND PROTECTED FLORA ATLAS

Myricaria germanica (L.) Desv.

Typha minima F. Hornk. et Hoppe

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TYPHA MINIMA POPULATIONS IN ITALY

by IUCN-red list data (about last 40 years), Prunier et al., 2010; other papers;

(graphic processing by A. Selvaggi)

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Typha minima is a species with conservation priority in Piedmont (protected by LR 32/82) and became EN in national flora red list (Conti et al., 2013); alpine river ecosystems are evaluated EN in ecosystems red list (Blasi et al., in press).

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Typha minima in Piedmont

Distribution in Piedmont
(from Selvaggi, 2009)

- black points: historical presence
- red points: actually presence
- ancient presence

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Min max altitude:
- 150 m (Valenza-Po)
- 1000 m (Salbertrand, Susa valley)
ANCIENT BIBLIOGRAPHIC DATA IN PIEDMONT
(from Selvaggi, 2009)

- found/identified first time by the botanist **Gian Francesco Re in Turin 1823 (along Dora Riparia river)**

**Other ancient bibliographic data:**

**Presence in this rivers:**
Po, Bormida, Dora Riparia, Dora Baltea Belbo, Tanaro and other non fluvial sites

**Herbarium**
(41 samples in historical and private herbariums)

**Presence in this rivers:**
Po, Stura di Lanzo, Dora Riparia, Dora Baltea Belbo, Tanaro and other non fluvial sites

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LOW ALTITUDE RECORD
IN A ANCIENT ITALIAN TOWN: NICE / NIZZA

Typha minima at sea level

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Typha minima in proximity of species like Dittrichia viscosa, Coriaria myrtifolia, Typha laxmannii, Arundo donax, ...

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TYPHA MINIMA IN STURA DI DEMONTE VALLEY

SIC
au sens de la Directive “Habitat”
et
Important Plant Area
au sens de la loi régionale 22/83 (à instituer)

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Destroyed by flood in 2009

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SIC IT 1160036: STURA DI DEMONTE (CN)

a rich Natura 2000 site between Maritime and Cottian Alps

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HUMAN IMPACT AND METAPOPULATIONS

upstream works in river bed maybe increase gravel charge in floods?
WITHOUT NATURA 2000 ACTIVE MANAGEMENT PLAN
CONSERVATION IS A HARD CHALLENGE

enhance natural hydromorphological processes and landforms
(avoid river bed incision)

ensure downstream connectivity and
decrease willow / poplar / alder
development
TYPHA MINIMA IN SUSA VALLEY (Dora Riparia river)

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ANOTHER VERY HARD CHALLENGE FOR CONSERVATION

an impressive series of pressures and human impacts

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MYRICARIA GERMANICA POPULATIONS IN ITALY

by IUCN-red list data (about last 40 years), Alessandrini et al., 2013; other papers;

(graphic processing by A. Selvaggi)

Myricaria germanica (L.) Desv.


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MYRICARIA GERMANICA POPULATIONS IN PIEDMONT
(with Hautes Alpes, Alpes de Haute Provence, Alpes Maritimes)

A regressive trend, but a low sample density along rivers too

Dora Baltea have in Aosta valley some populations

a recent new Myricaria location (maybe populations upstream in Varaita valley?)

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COMPARISON WITH TRENTINO & SÜDTIROL

(from Michielon & Sitzia, 2014)

the same regressive trend...

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PELLICE AND CHISONE RIVER BASIN

a special Natura 2000 site dedicated to german tamarisk:

IT1110033 “Stazioni di Myricaria germanica”

a little site with an extension requirement: inventory monitoring in august 2016 along Pellice river (volunteer camp with Legambiente ass.)

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TRANSFORMATIONS IN A REGULATED RIVER

progression of other species and biotopes due to river bed incision: *Epilobium dodonei, Achnatherum calamagrostis*, willows, ruderal species

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TOO MANY HARD WORKS IN RIVER BEDS

Chisone river near Pragelato

Pellice river near Bobbio Pellice

river bed shrinkage and canalization in no urbanized areas despite past failures of this strategy

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THE SAME HISTORY IN DOLOMITES
(an example: the Avisio valley-Val di Fassa)

(from Michielon & Sitzia, 2011)

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unfortunately scientific approach and meetings don’t save endangered species...

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SOME PROPOSALS FOR NW ITALIAN ALPINE RIVERS

- after 20 years wasted time, reach an effective management of N2000 sites

- include Typha minima populations of Susa valley in a new or previous N2000 site

- promote river restoration through european programs

- promote “Land stewardship” and “River stewardship” like a sustainable practice for natural spaces conservation at local scale

- launch a “cultural battle” to conceive biodiversity as an fundamental part of human heritage in a social context culturally unfavorable to agree wilderness

- and ... (see next slide)

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... get ready the next Workshop of Typha minima group in Piedmont - Italy ... 

THANK YOU