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Non-wood forest products and services as a way to sustain landscape management in European mountain areas

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Multipurpose trees and non-wood forest products, a challenge and opportunity

www.star-tree.eu



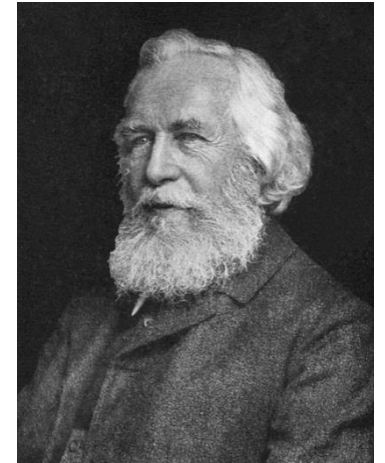
Funded by the European Union



Ecology and **economy** have a common root ($\text{o\tilde{i}kos}$ = home)

The term ecology was coined by direct reference to the economy of nature.

Ecology is a human science as well



Ernst Haeckel

Landscape, intended as an expression of the complex interaction between society and nature and the stratification of the processes that accompanied productive transformations in the course of time



Trends shaping European mountain: we must take into account anthropogenic forces, including socio-economic drivers



Giovanni Segantini "Alla Stanga", 1866

Meadows and pastures with larches

- traditional silvopastoral activity. Mountain areas 1000-2000 m a.s.l.
- From 3000 b.C.
- Forage + animals + wood reserve



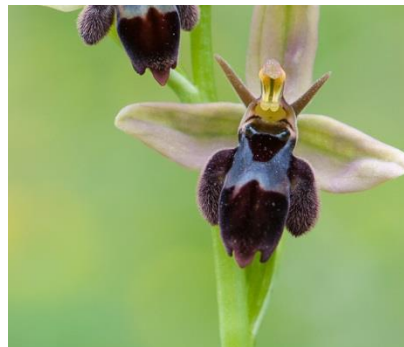
Rich in species: more than 60



This richness is possible only with a low intensive management poor in nutrients



*Phyteuma
betonicifolium*



Ophrys insectifera



*Traunsteinera
globosa*

Source: Ratze et al. 2015

Intensivization



- 80% species

Abandonment



- 30% species

In Alto Adige from 1975 → loss of 30%

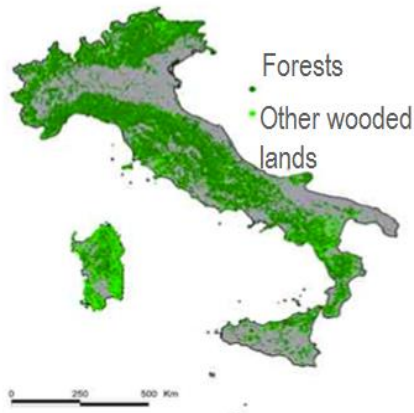
Source: Ratze et al. 2015

Second half of the last century: movement toward urban areas

Decline of agro-silvopastoral activities

➔ land abandonment

➔ forest surface increased



Source: INFC, 2007

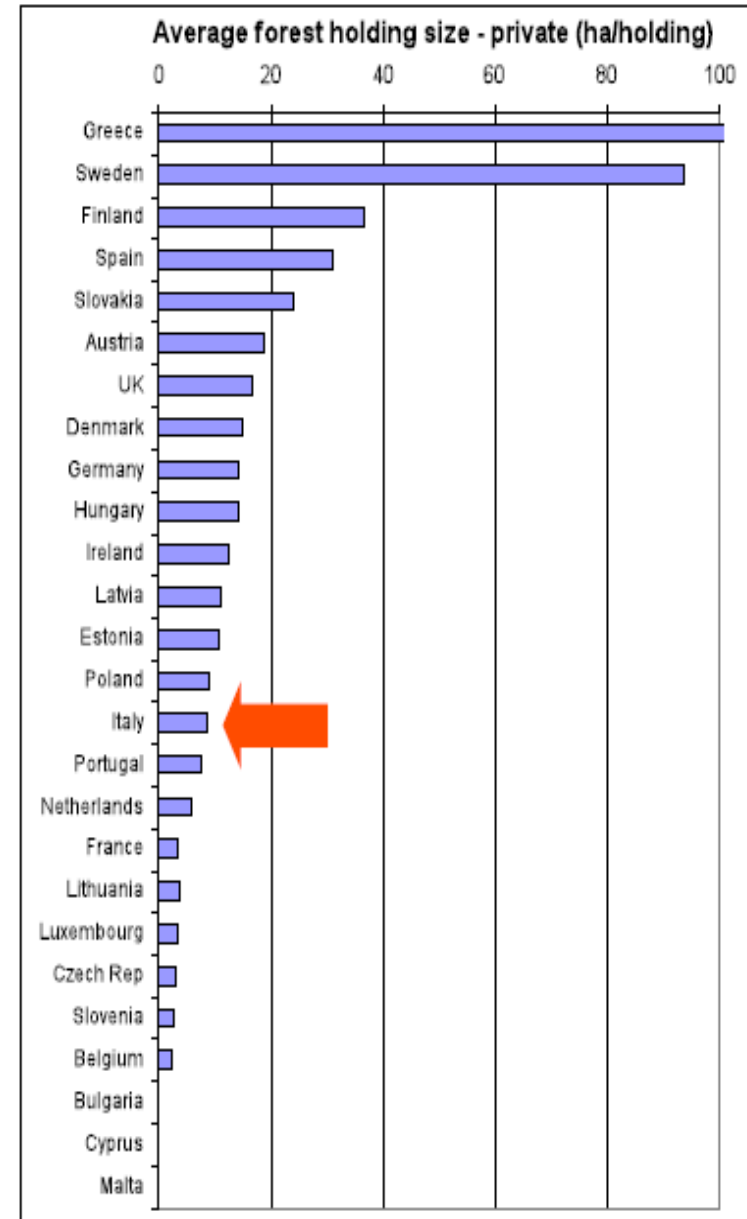
E.g. in Italy: From the '50 the forest surface doubled
From 5 to 10.35 Mha

Forest activities become less profitable

Reasons:

Example from Italy

- **Fragmented forest-ownership** (on average: 7ha)
- **Small forest enterprises** (on average: 3 to 4 employees)
- Lack of strong national association of forest enterprises
- Inadequate technological equipment



(MCPFE 2003)

Sawnwood production in Europe (1.000 m3): concentration in few countries and enterprises

Companies			Sawmills		
Rank	Company	Production or Capacity [m3/yr]	Rank	Sawmill	Production or Capacity [m3/yr]
1	Stora Enso	5960000	1	Saalburg-Ebersdorf Sawmill	1200000
2	Pheifer Gruppe	2200000	2	Wismar Sawmill	1200000
3	UPM	2020000	3	Somplar sägewerk	1200000
4	Moelven	1968000	4	Binder sägewerk	825000
5	Rettenmeier Group	1935000	5	Landsberg Am Lech	825000
6	Ante-holz GmbH	1900000	6	Offner Wolfberg	800000
7	Klausner-Group	1860000	7	Rottleberode sägewerk	700000
8	Mayr-Melnhof Holz	1830000	8	Sebes Schweighofer	700000
9	SCA	1690000	9	Radauti Schweighofer	700000
10	MetsäWood	1487000	10	Kodersdorf Klausner Sawmill	660000
11	Setra Group AB	1460000	11	Värösågen	650000
12	Södra Timber	1400000	12	Leoben	650000

FI, SE, NO + AT & DE
+(RU+UK)

Rank 2011	Rank 2010	Company	Country
1	1	Stora Enso Wood Products	FI
2	6	SCA Timber	SE
3	4	Moelven	NO
4	3	Mayr-Melnhof Holz	AT
5	6	Setra-Gruppe	SE
6	8	Holzindustrie Pfeifer	AT
7	9	UPM-Kymmene	FI
8	5	Södra Timber	SE
8	10	Rettenmeier-Holding	DE
10	11	Metsäliitto-Finnforest	FI
11	13	Holzindustrie Schweighofer	AT
11	-	Ilim Timber Industry	RU
13	12	Klenk Holz AG	DE
14	17	ante-holz	DE
15	14	Vida	SE
15	15	Holzindustrie Binder	AT
15	19	BSW Timber	UK
18	15	Ziegler Holzindustrie	DE
19	20	Rörvik Timber	SE
20	2	Klausner-Gruppe	DE
		Average value/Sum	

Loss



Incomes in rural areas



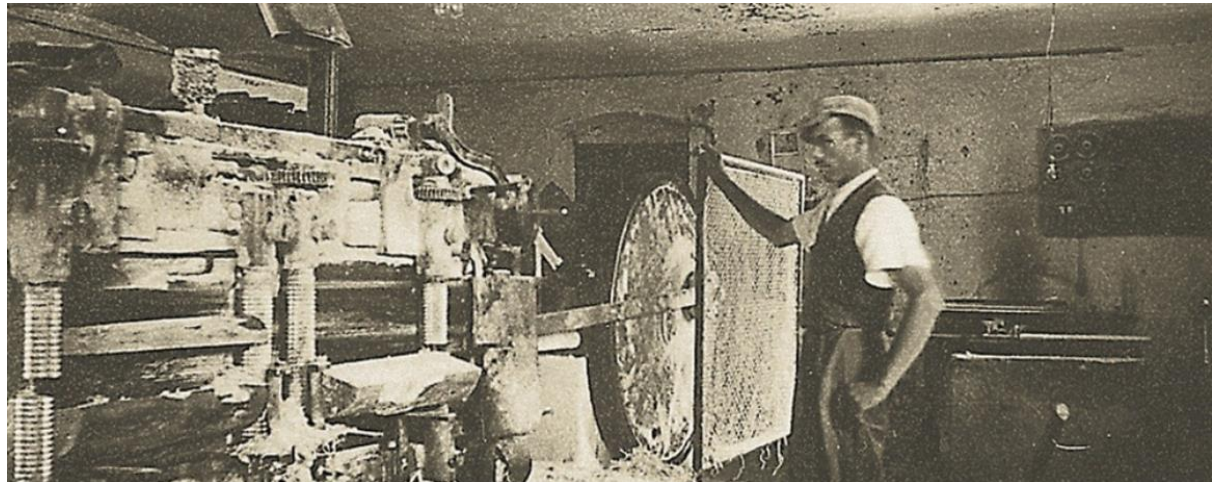
Decrease of the quality of the landscape (indicator of the well being of life for rural population)



Biodiversity

In order to maintain alive the small scale saw milling activities a solution could be the **vertical integration production** of sawn wood and finished products with high value added.

Pircher, leader in the
outdoor wood sector
<http://www.pircher.eu/>





*Le Penseur-
Auguste Rodin*

The forest sector is looking also to **other options** to maintain the equilibrium in these valuable ecosystems and to provide **complementary alternatives** of incomes

A) Products

B) Services

C) Products & Services

A) Products

Berries



Aromatic plants



Mushrooms



Tree leaves, flowers and foliage



Forest nuts



NWFP: Products of biological origin other than wood derived from forests, other wooded land and trees outside forests (FAO 1999)

Bark



Resin and sap



Tannins



Over 100 experts in 14 regions across Europe:

- Forest have sufficient capacity to support a successful NWFP sector
- Compatibility wood and non-wood is not a problem
- Currently forests are not managed to produce NWFP (even if some productions models are available)



E.g. Bonet et al. 2014:



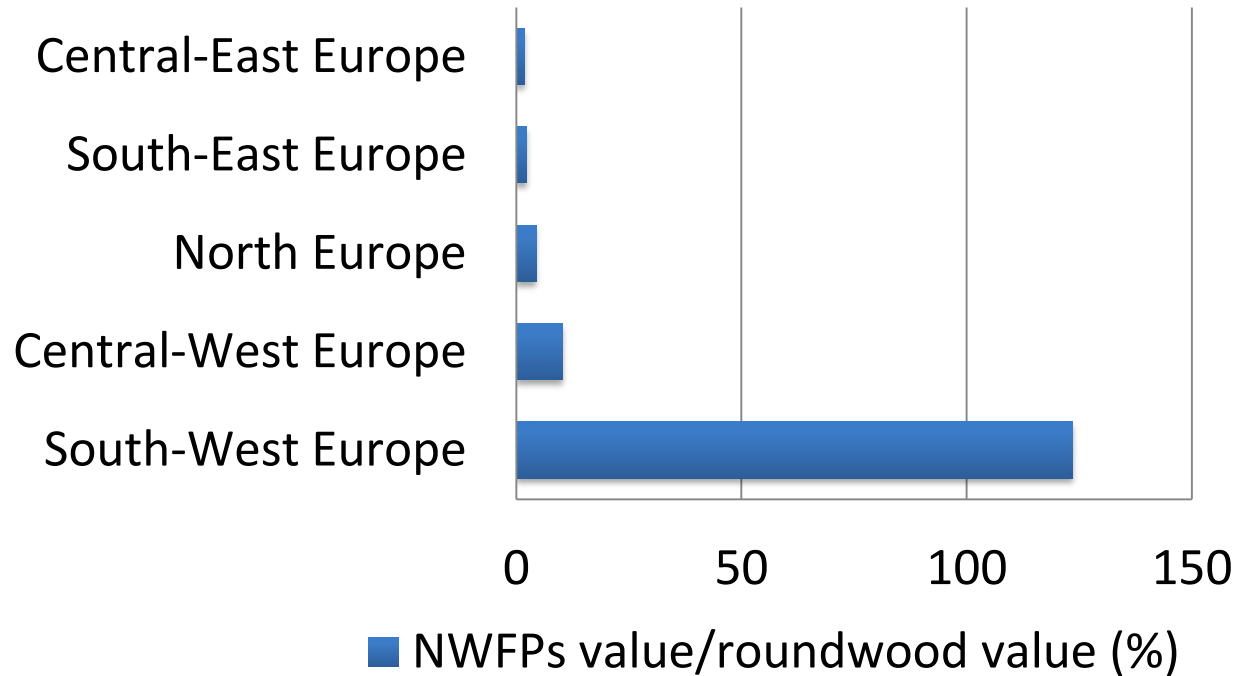
In Catalonia, mostly in mountain areas :
Mushroom yield models based on large
data series from Pinus forest →
mushrooms productivity:



- 24,500 tons/yr of mushrooms (of which 16,300 tons edible)
- Economic value is estimated at 48 million €



In some European regions the value of marketed NWFP is higher than the roundwood production

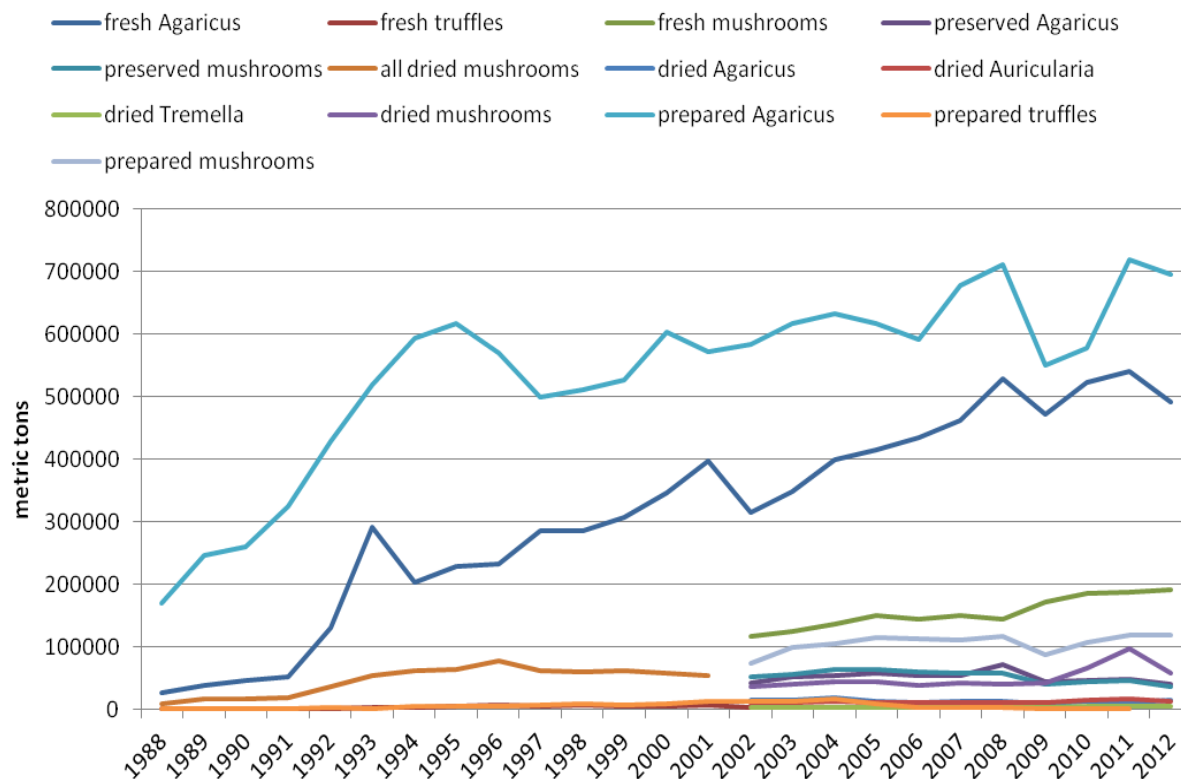


Source: elaboration from Forest Europe, UNECE and FAO, 2011 data

Mushrooms: trend analysis

Wild mushrooms:
26.4% of the total
traded volume with a
value that is the **45.6%**
of the total value (4.98
B US\$ in 2011)

Boletes prices: 6.15
€/kg at wholesaler
level and chantarelles:
4.5-5€/kg



Source: our elaboration on Comtrade data

How can they be commercialized? Mass market



Cranberries
harvesting in New
Jersey

→ in the Alpine regions, It is not a winning strategy for promoting sustainable local development, added value, rural employment, multifunctionality

Localism; short
value chain

Sustainability

Environment

Health



Good quality

Tradition

Local, direct, specialty markets: less quantities
but more added value



Novelty and niche products



Chestnuts liquor



Dried soft chestnut

Package for making the traditional *castagnaccio* cake (based on chestnut flour, and pine seeds)



Rediscovery ancient crafts

Larch turpentine

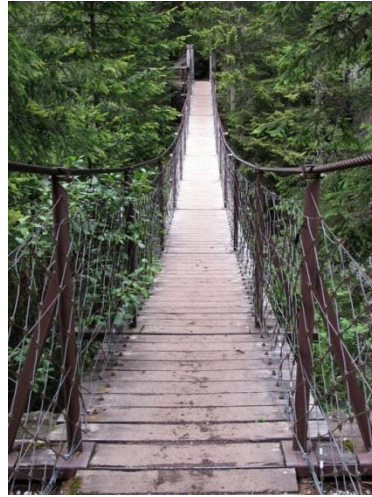
Once largely used for the treatment of wood, today mainly employed for pharmaceutical uses and cosmetics, in paints and varnishes



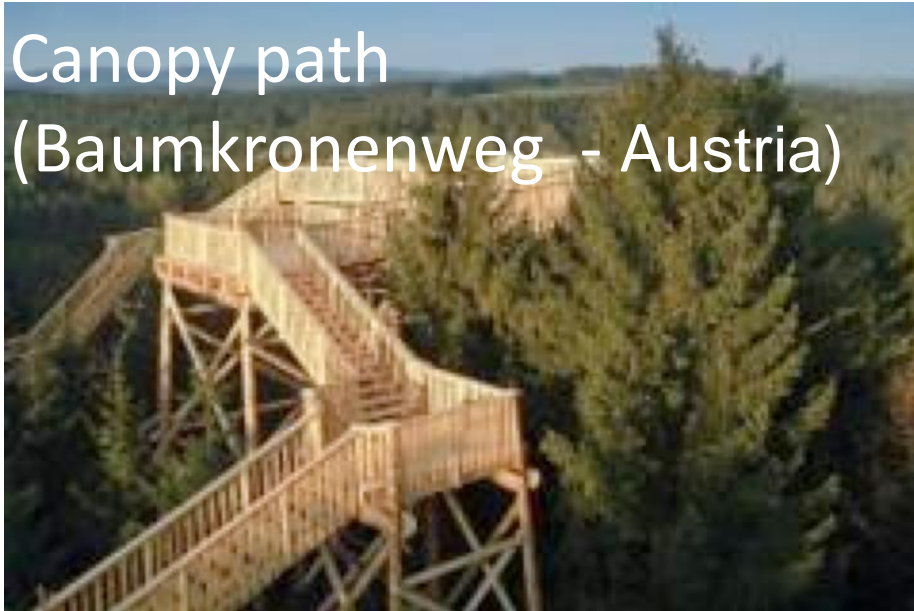
B) Services

i) Forest and environmental education: nature observation

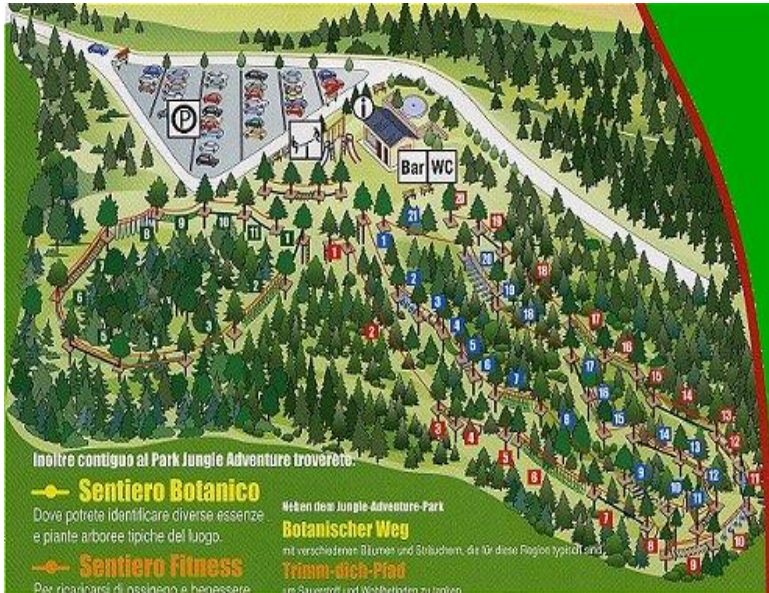
Aerial paths



Canopy path
(Baumkronenweg - Austria)



ii) Sport and exercising : adventure parks, orienteering etc.



Even on only 1ha of surface

iii) Recreational, social and cultural

Concerts



Sounds of Dolomites
www.isuonidelledolomiti.it



Path in the nature with artistics
installation

About 100.000 visitors/year



Arte Sella (www.artesella.it)

Registrati Entra

Voce **Discussione** Leggi **Modifica** Modifica wikitesto Cronologia Ricerca

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Selviturismo

Da Wikipedia, l'enciclopedia libera.

Questa voce sugli argomenti turismo e ecologia è solo un **abbozzo**.
Contribuisci a migliorarla secondo le **convenzioni di Wikipedia**. Segui i suggerimenti del **progetto di riferimento**.

Il **selviturismo** (derivante dai termini "selva" e "turismo"), è una forma di **turismo** collegato all'**ambiente boschivo** e a tutte quelle attività (Didattiche, Sportive, Terapeutiche, Amatoriali) in esso realizzabili.

Spesso si pratica trascorrendo un determinato periodo di tempo in **rifugi**, **foresterie**, o anche in **aziende silvicole** situate in località d'interesse forestale.

Il selviturismo rappresenta l'ultima evoluzione del turismo naturalistico, poiché, ricostituendo i boschi e salvaguardando la biodiversità, si potrà favorire la sostenibilità in ambiente naturale.

L'associazione specificatamente impegnata per promuovere e diffondere la conoscenza della Selvicoltura è l'A.S.I. (**Associazione Selviturismo Italia**) la quale non avendo fini di lucro, si prefigge di implementare il selviturismo a livello Nazionale.



«last evolution of the naturalistic tourism, because it financially helps to manage forests and to safeguard biodiversity, aiming at sustaining environmental sustainability»

C) Products&Services

i) NWFP collection as recreational service

Mushrooms permits:

Fiemme Valley: 9 municipalities together

- Resident: don't pay
- Non resident: 12 € /day; 24 € /week; 55 € /month
- €200,000/year
- 4 mushrooms guards and equipment
- Sharing between municipalities



Revenues used for forest management activities



ii) Complementary products and services: territorial marketing

Road, trail, path... the tools for connecting different economic actors and stakeholders:

Chestnut road
Truffle road
Mushroom road
Pine Kernel road
etc



South Tyrol

Törggelen days

- roasted fresh chestnut +
- new red wine tasting +
- Tour of the local farms

The screenshot displays a website for South Tyrol tourism. At the top, there's a navigation bar with links: Dolomiti, Escursioni, Consigli, Guida alle escursioni, History, Natura pura, Hotel, Escursioni, Camere & prezzi, Avventure invernali, and Contatto. The main content area features a large image of a castle on a hill. Below this, the text reads: 'Settimane torggele', 'Bel tempo e vino nuovo', 'Vino nuovo e raggi di sole. Le settimane escursionistiche "Törggelen" in allegria compagnia.', 'Il bel tempo d'autunno, e sole caldo e le antiche usanze risvegliano l'energia vitale e la voglia di vivere.', 'Degustate il vino nuovo, accompagnato da caldarroste, noci, salsiccia fatta in casa e costolette di maiale.', and 'I prezzi s'intendono a settimana e persona con trattamento di mezza pensione.' A sidebar on the right contains a vertical menu with buttons: How to get there, Villages, Climate & lifestyle, Highlights, What to see, What to do, Where to stay, and Special offers. The bottom of the page shows two small images of autumn landscapes.

http://www.wanderhoteleuropa.com/it/wandern/angebot_05.html

Autumn - 'Törggele' time



Autumn walks with friends and calling in at mountain farmhouses or inns for refreshment - called 'Törggelen' - is a favourite traditional activity in South Tyrol. The 'Nuien' (new wine made from grapes which a couple of weeks before were still in the vineyard) plays an important part, along with traditional dishes including 'Speck' (cured, cold smoked bacon), home made sausages with Sauerkraut or red cabbage, roast chestnuts followed by home made pastries, and much more. 'Törggelen' is a delight for all lovers of genuine food and drink, especially when enjoyed outside in the warm autumn sunshine from October to mid November.

On the left you will find informations on mountain restaurants offering snacks and new wine, mountain refuges and cable cars.

Castione chestnuts Association

- Road and networks of actors
- Fairs events



NWFP can become an imago products for a specific territory, linking traditions and landscape → complement rural incomes and sustain mountain land management

research against chestnut disease

- Recovering old chestnuts orchards

www.marronicastione.it

Anni Castione 2012 '13 '14



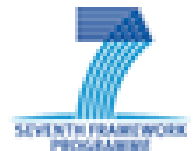


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Thank you

berry much