

# Can fences stop wild boar movement across the landscape?

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## Can really long border fences stop ASF?

- Denmark border: **70 km / 11 M€** / 1,5 m height / 50 cm buried
- France (Meuse-Ardenne) border: **112 km / 5,6 M€**

Other countries considering or preparing: Poland, Lithuania, Luxemburg....



Ritzau Scanpix / Reuters

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## Long fences are 'popular' but could they stop ASF?

- Denmark border: **70 km / 11 M€** / 1,5 m height / 50 cm buried
- France (Meuse-Ardenne) border: **112 km / 5,6 M€**



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## Guidelines provided are evidence-based

- A low number of peer review papers evaluating fences effectiveness.
- A big number of projects:
  - Monitoring wildlife mitigation at fenced **Roads** and **High Speed Railways**
  - Evaluating performance of airfield's fences in the framework of **Airports Wildlife Hazard Management Programmes**
  - Testing effectiveness of 'scent barriers' and electric fences to protect **crops and pastures**



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More information at 'Guidelines about measures to reduce damage caused by wildlife' (main target wild boar)



English version available [on-line](#)

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### 'Standard' wild boar fencing

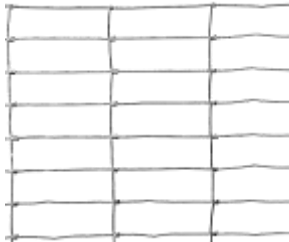
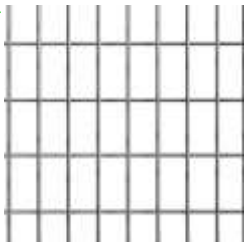
- Knotted wire mesh with progressive density anchored at poles
- Buried minimum 20 cm



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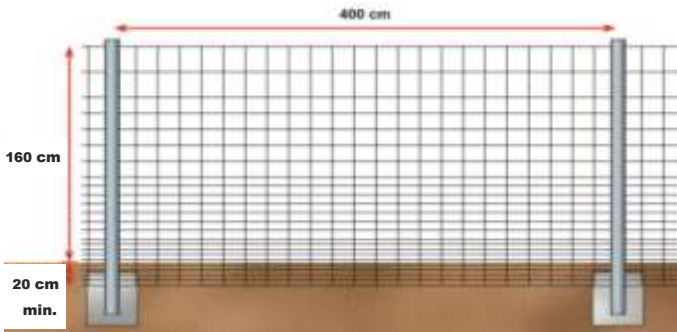
Mesh typologies



Knotted or Welded are suitable mesh typologies

Sources: Rvisa, Bricolemar, RGM.

Buried on the soil: a critical point to guarantee effectiveness



Wild boar

Minimum height	160 cm (+20cm buried)
Separation between poles	200 - 400 m

Source: Catàleg per reduir danys de senglar (2018); Prescripciones técnicas pasos de fauna y vallados (2006, updated 2015).



# Fencing small areas: more feasible



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## Existing fences can be reinforced against wild boar

- Welded wire mesh



- Anchoring racks



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## Fenced roads and railways

reinforcement provide an opportunity to reduce wild boar movements, BUT ...



## High maintenance is needed

Vulnerable points exist at locations where fences are damaged



# Vulnerable points

Escape devices for animals that enter in a fenced road



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# Wildlife manage to find vulnerable points



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**Vulnerable points**

Crossing of ditches, culverts, ...



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**River crossing**



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Tunnels and  
viaducts allow  
wildlife to cross  
transport  
infrastructure  
barriers



Infraestructuras.Cat / Departament de Territori i Sostenibilitat. Autor: Minuartia-Hemav

Wildlife crossings must maintain their functionality:  
- contribute to maintain ecological connectivity  
- make part of the European 'Green Infrastructure'

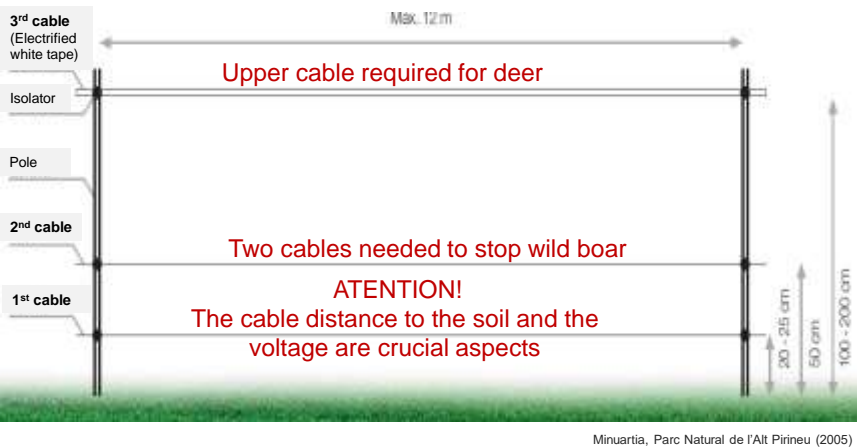


Oscar Aldama - Carme Rosell - Minuartia



Other techniques to restrict movements

Electric fence



Minuartia, Parc Natural de l'Alt Pirineu (2005)

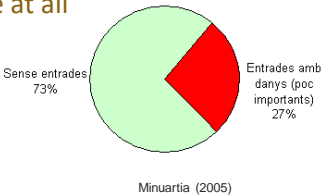
## Electric fence



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## ‘Scent barriers’ Olfactory repellent – spraying

- Product diluted in water
- Temporary effects only / wild boar get used to it
- Be aware, some products are NOT effective at all



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### **‘Scent barriers’ Olfactory repellent – fixed on foam**

- Awareness, but do not really deter the wild boar to cross
- Temporary effects only / wild boar get used to it
- Be aware, some products are NOT effective at all



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### **‘Scent barriers’ Olfactory repellent – spraying**

- Product applied in felts or bags / Different substances
- Temporary effects only / wild boar get used to it
- Be aware, some products are NOT effective at all



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## Conclusions

- We have the knowledge on how to build wild boar fencing, BUT
  - **high maintenance is required**
  - **many vulnerable points.**
- Fences (wire mesh and electric) **can reduce wild boar movements in small-medium size areas if strategically designed and well constructed.** Scent barriers have only temporary effect, but could be also considered in small 'newly infected' areas.
- **Long fences are NOT recommended**
  - low effectiveness due to vulnerable points
  - high impacts on ecological connectivity and biodiversity.



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## Thank you for your attention

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