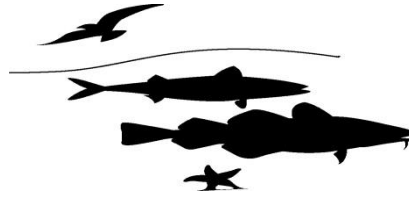




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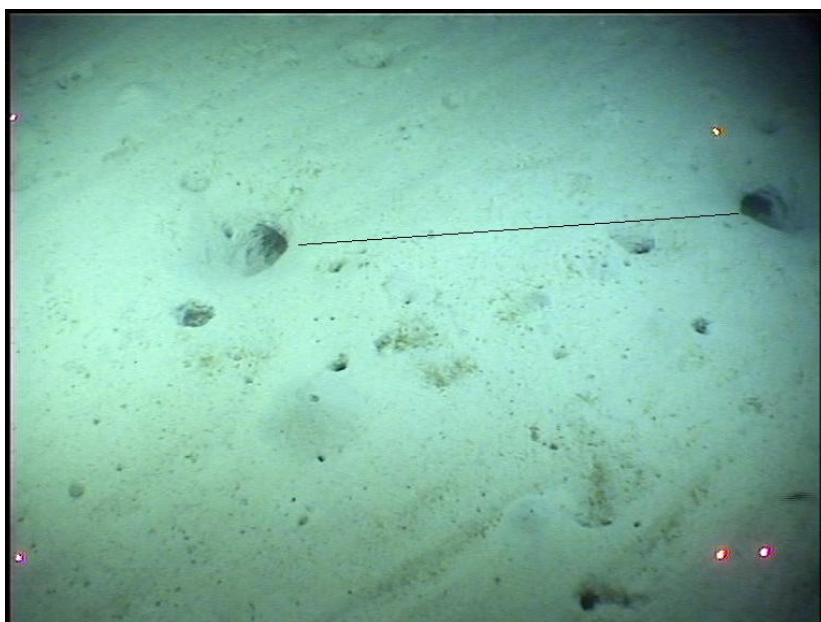


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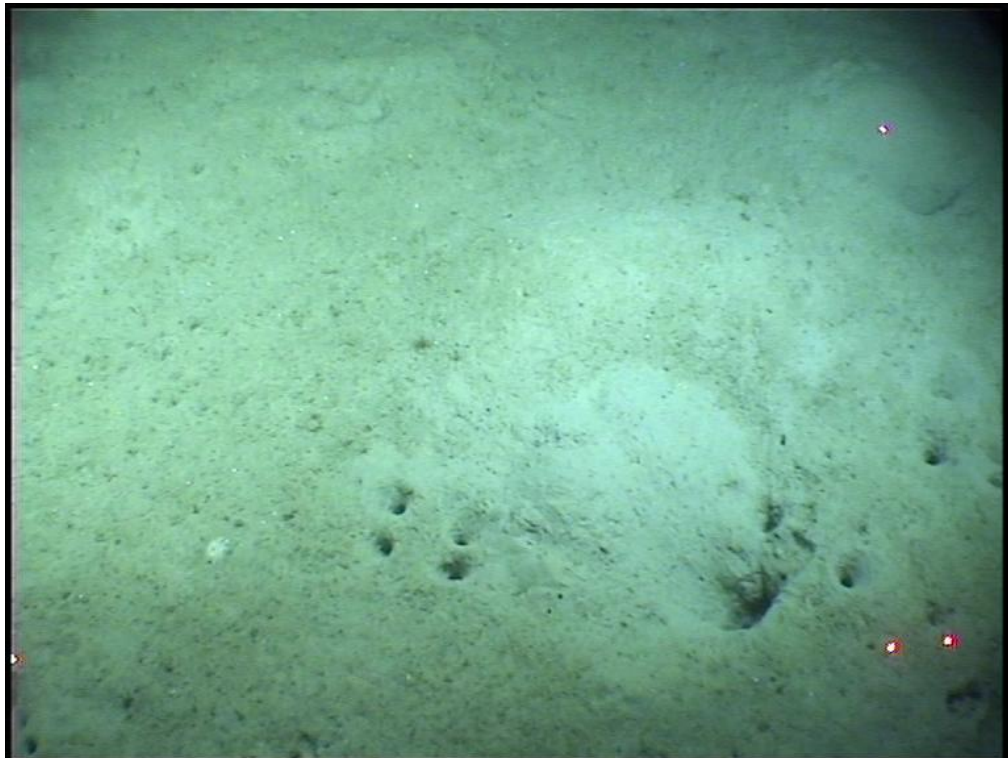
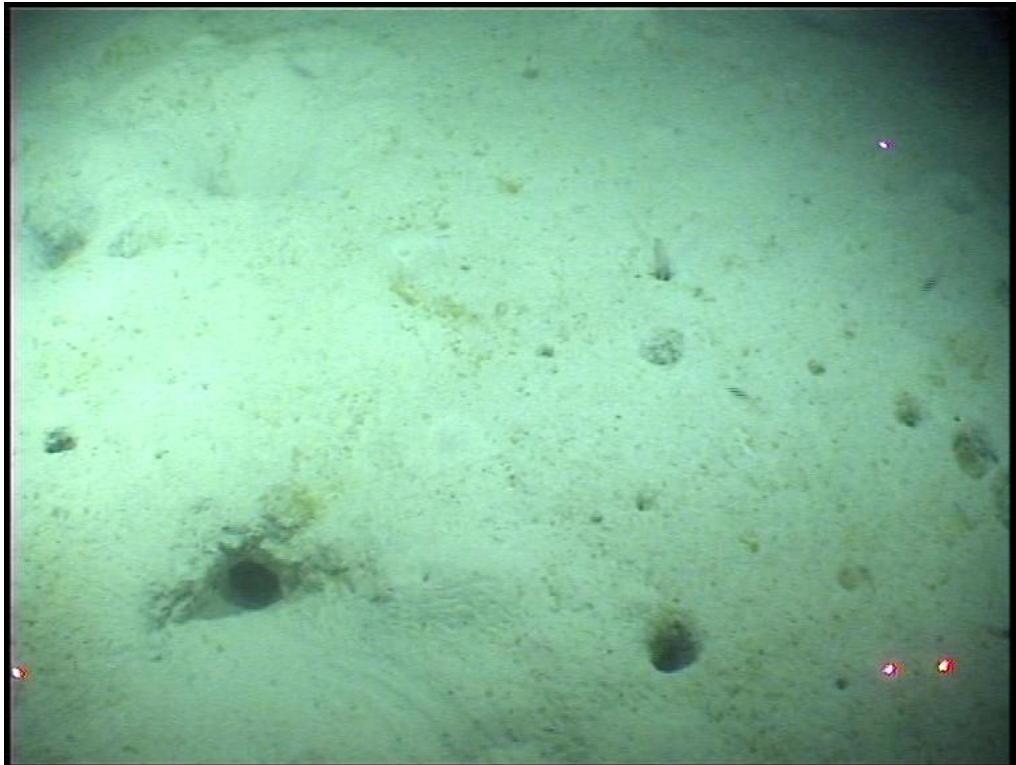
***Nephrops norvegicus* Burrow Identification.**

There are 4 signature features to a *Nephrops* Burrow.

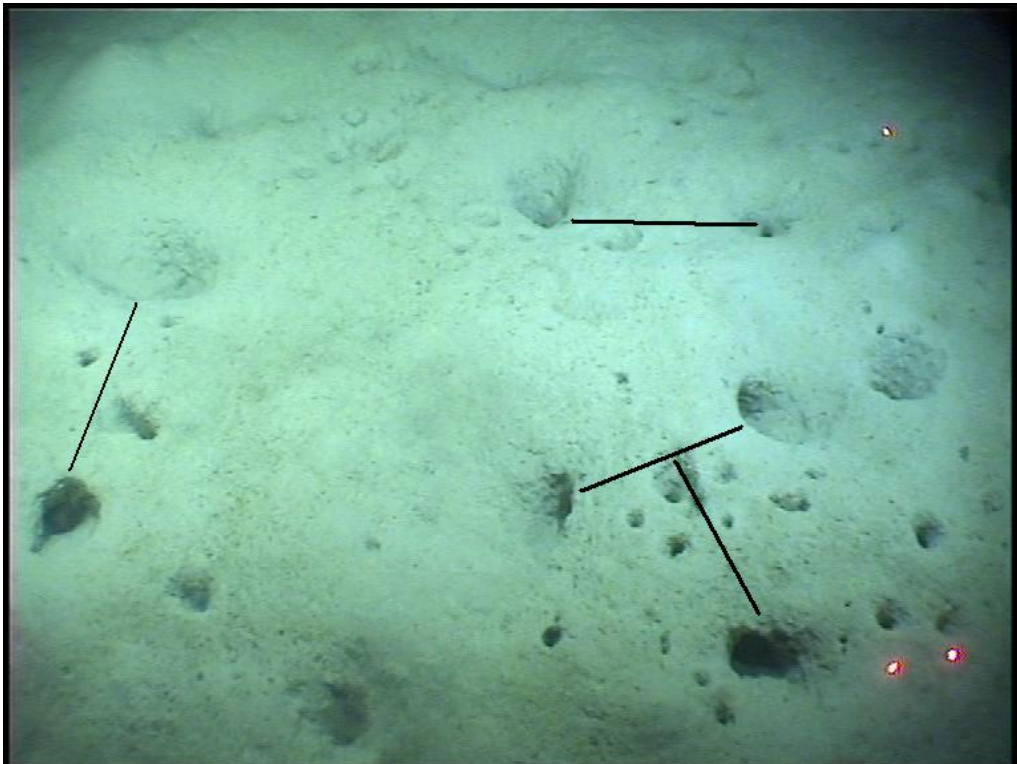
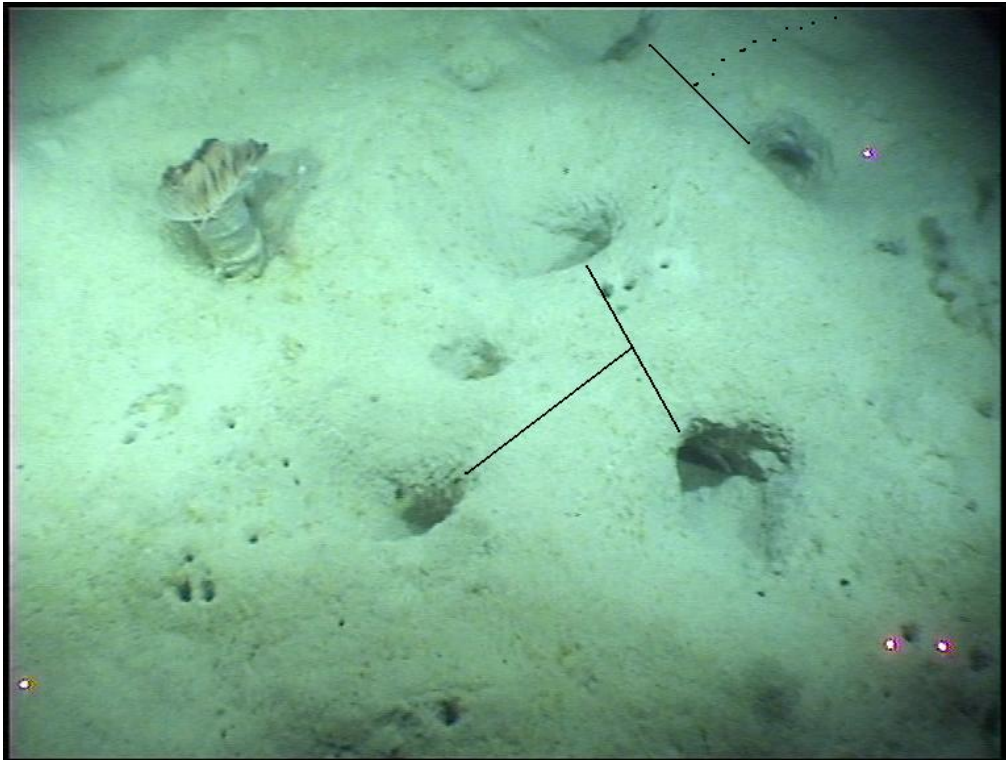
1. Crescentiform entrance.



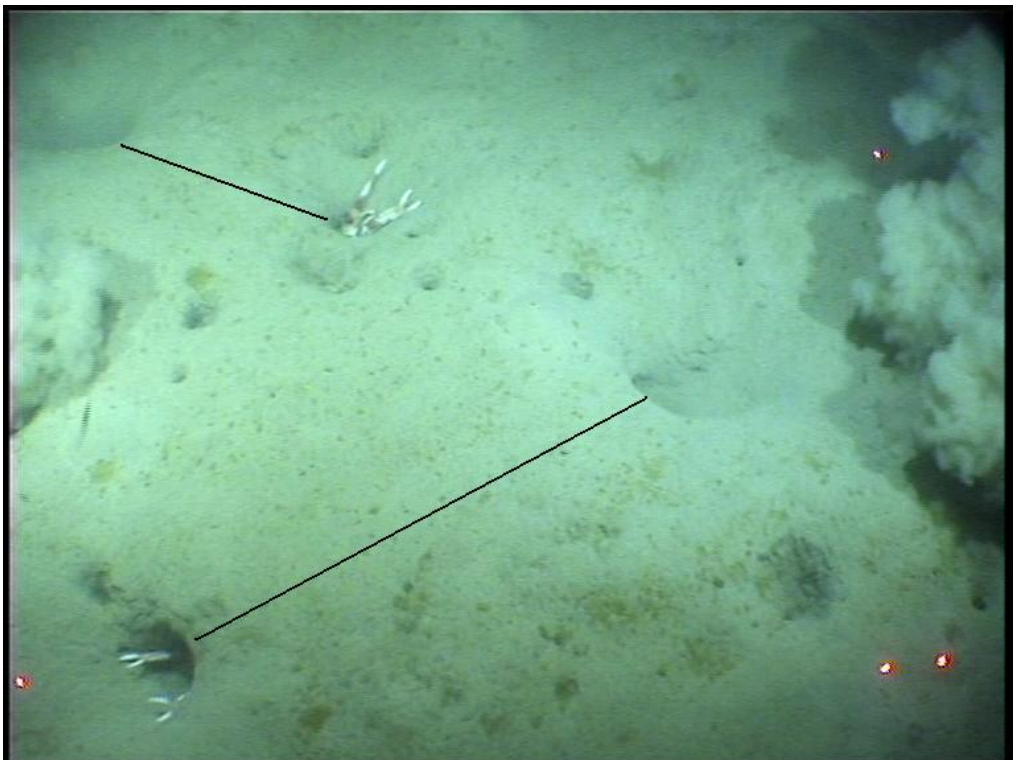
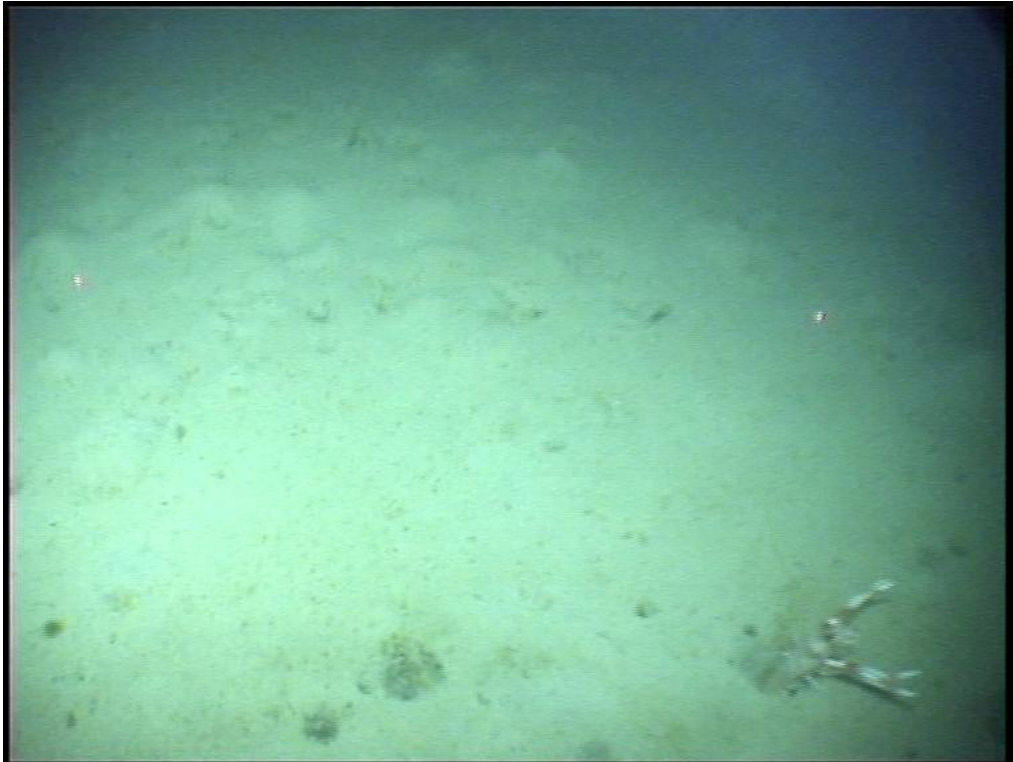
2. Sediment ejecta and radial scrapings around entrance. Claw or perieopod indents.
'Drive-way'



3. Single to multiple entrances, focussing on an apparent 'raised' centrum or central area.



4. *Nephrops* entering or leaving the burrow or just visible within the burrow.



Counting Procedure.

- At least one burrow opening is usually distinctly crescentic in shape. Where the angle of view permits sight of the tunnel beyond this opening, the angle of descent is usually shallow.
- When counting a *Nephrops* burrow system look for groups of similar sized entrances radiating out from a centrum then look for the *Nephrops* signature features.
- A *Nephrops* burrow system may have one single burrow entrance or multiple entrances.
- Simple burrows are linear. More complex burrows are T-shaped with three openings and may be further elaborated.
- The relative size, and orientation to entrances that have passed or about to come into view will indicate whether they are linked or part of separate burrow systems.
- In the absence of *Nephrops* signatures dismiss:
 - vertical holes
 - flat holes with curved scapings, sediment piled in mounds
- Do not count inactive or filled in burrows.
- Burrows may have different morphologies on grounds that have different characteristics (sediment type, density of *Nephrops* and other burrowers, depth, area, etc.). UWTV footage from the Irish Sea (FU15) is very different to Aran grounds (FU17) footage so for a given ground get familiar with the morphology and other local characteristics.

Further reading and References:

- **ICES 2007.** Report of the Workshop on the use of UWTV surveys for determining abundance in *Nephrops* stocks throughout European waters (WKNEPHTV). ICES CM: 2007/ACFM: 14 Ref: LRC, PGCCDBS.
- **ICES 2008.** Report of the Workshop and training course on Nephrops burrow identification (WKNEPHBID). ICES CM: 2008/LRC: 3 Ref: LRC, ACOM.
<http://www.ices.dk/reports/LRC/2008/WKNEPHBID/WKNEPHBID2008.pdf>
- **ICES 2009.** Report of the Study Group on *Nephrops* Surveys (SGNEPS). ICES CM 2009/LRC: 15. Ref: TGISUR.
<http://www.ices.dk/reports/SSGESST/2009/SGNEPS/SGNEPS09.pdf>
- **ICES 2010.** Report of the Study Group on *Nephrops* Surveys (SGNEPS). ICES CM 2010/SSGESST: 22. Ref: SCICOM, ACOM
<http://www.ices.dk/reports/SSGESST/2010/sgneps10.pdf>
- **ICES 2012.** Report of the Study Group on *Nephrops* Surveys (SGNEPS). ICES CM 2012/SSGESST: 19. Ref: SCICOM, ACOM
<http://www.ices.dk/reports/SSGESST/2012/SGNEPS12.pdf>