



# Aquatic Plant ID Guide



**Bedfordshire  
Cambridgeshire  
Northamptonshire**

**Josh Hellon**

- This is a simple guide to the identification of aquatic plants you are likely to encounter in Beds, Cambs and Northants.
- These species can be found in ponds, rivers and wetland environments.
- The guide also includes some commonly found bryophytes and algae
- The guide is based on training provided by N.Holmes (2007).  
All drawings by J.Hellon (2016)
- Photos all sourced from Wikimedia Commons – full reference available on request.



**Bedfordshire  
Cambridgeshire  
Northamptonshire**

# Using the guide

- This simple guide is based on the growth form of plants rather than family group etc.
- Where plants have various leaf types they may appear in more than one section of the guide.
- Use the contents page to navigate



**Bedfordshire  
Cambridgeshire  
Northamptonshire**

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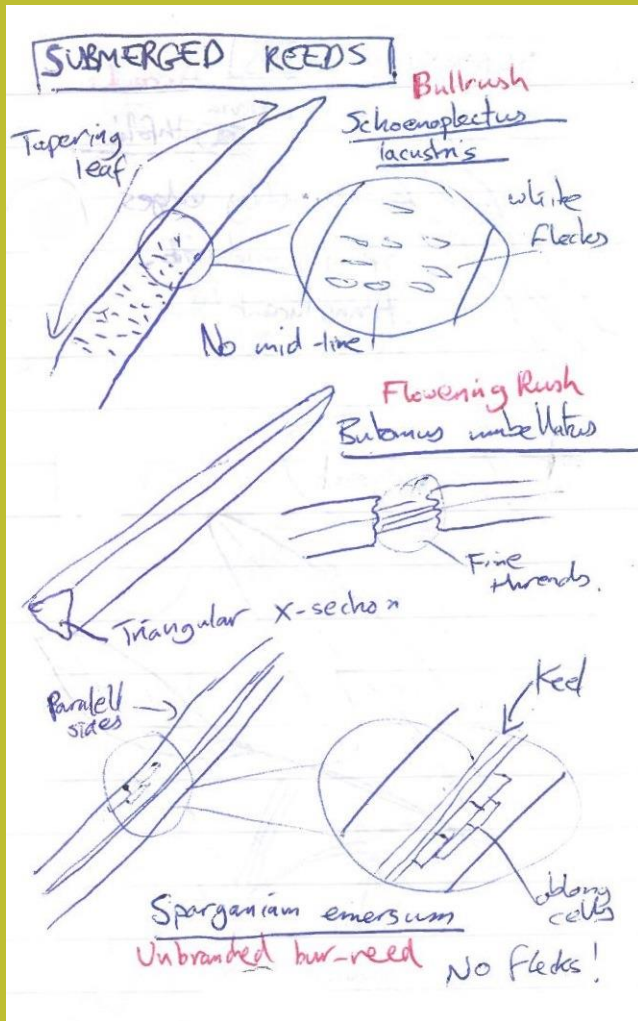
Bedfordshire  
Cambridgeshire  
Northamptonshire

# Submerged Reeds



Bedfordshire  
Cambridgeshire  
Northamptonshire

## Submerged Reeds



*S.lacustris*



*B.umbellatus*

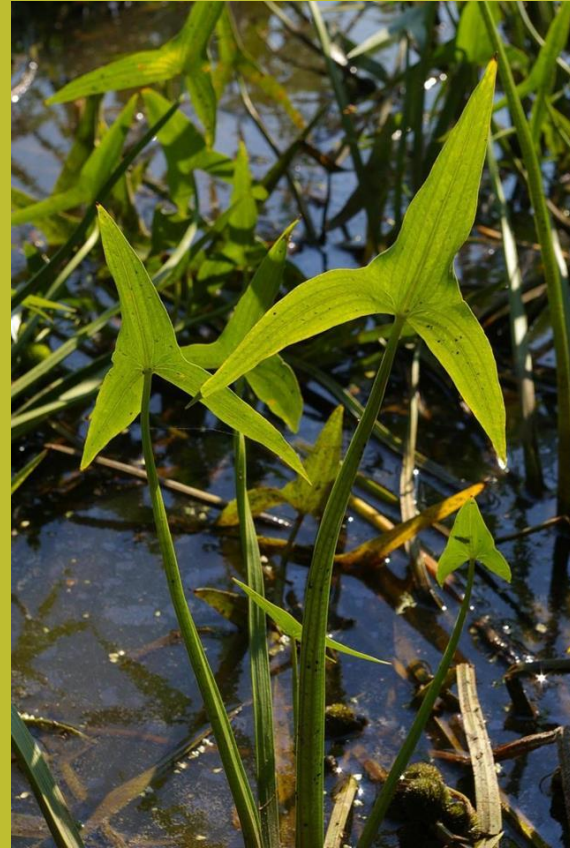
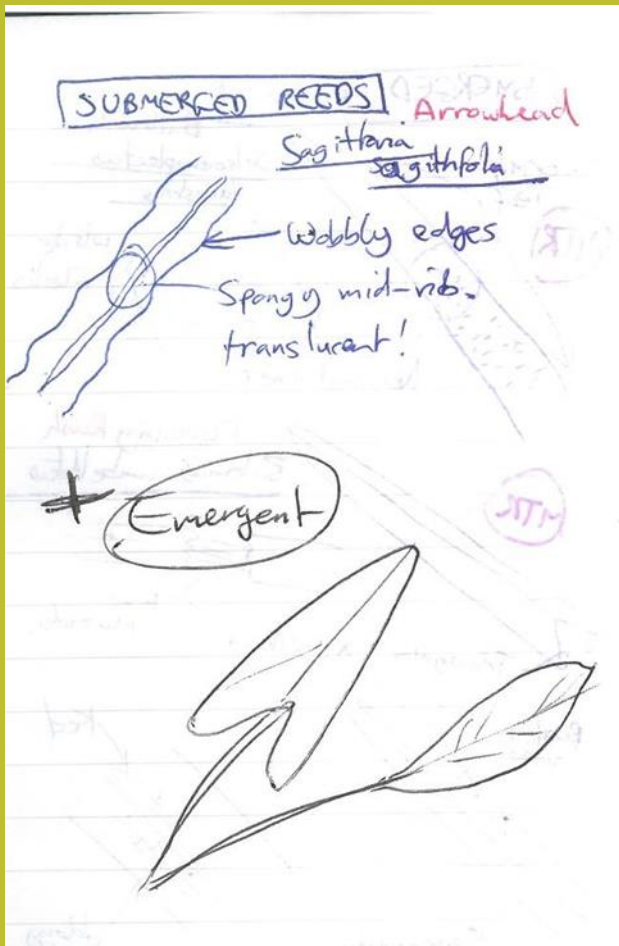


*S.emersum*



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# Submerged Reeds



*S.sagittifolia*



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# Submerged Reeds

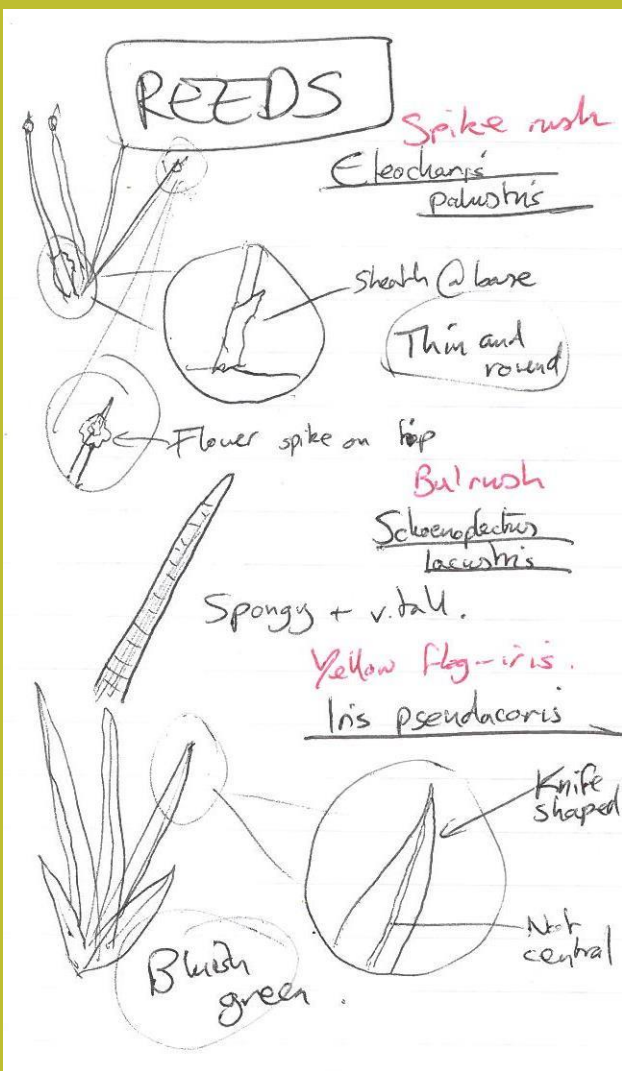
# Emergent Reeds



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## Emergent Reeds





*E. palustris*



*S. lacustris*

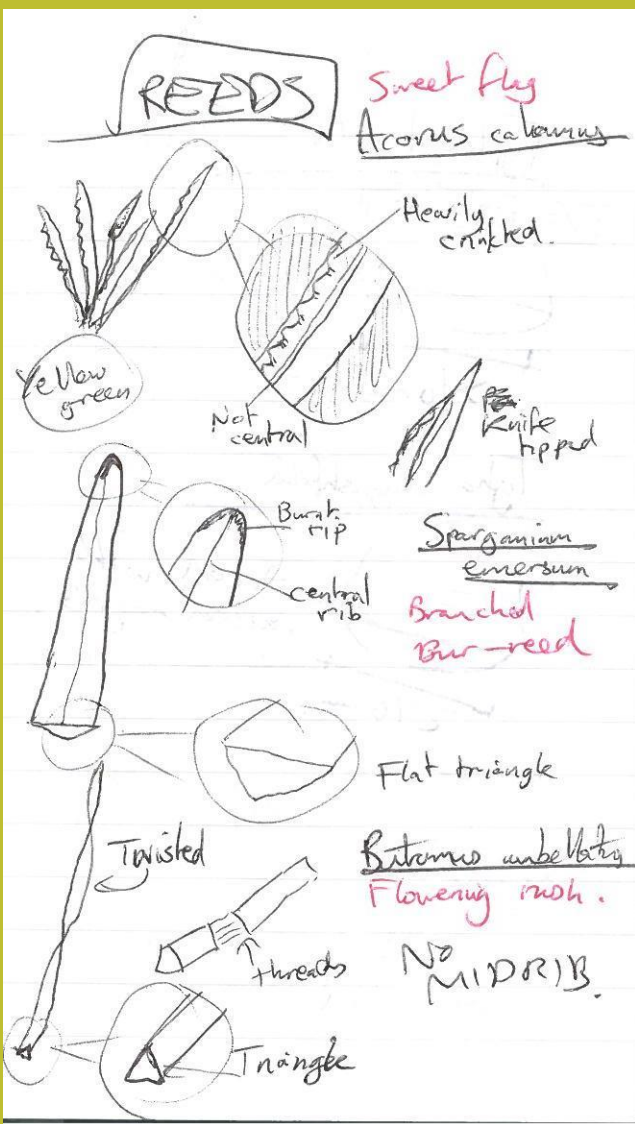


*I. pseudacorus*



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# Emergent Reeds



*A. calamus*



*S. emersum*



*B. umbellatus*

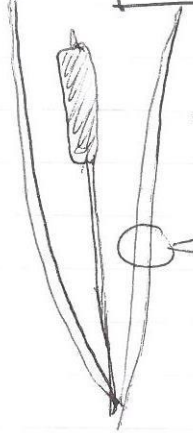


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# Emergent Reeds

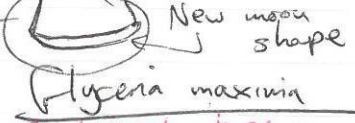
# REEDS

Reedruce

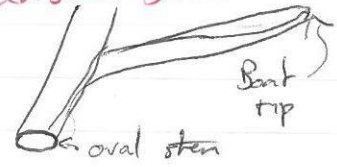


*Typha* spp.

Tall bluish-green leaves  
+ ballrush.

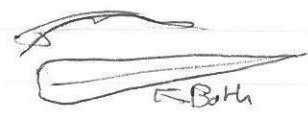
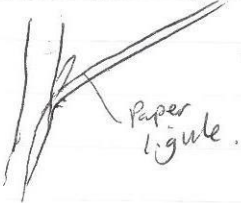


*Glyceria maxima*  
Reed sweet grass



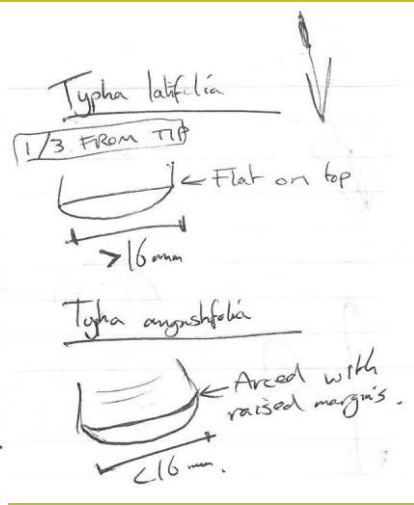
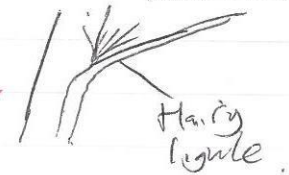
Reed Canary Grass

*Phalaris arundinacea*



*Phragmites australis*

Norfolk Reed.



*T.latifolia*



*T.angustifolia*



*P.australis*



*G.maxima*



*P.arundinacea*



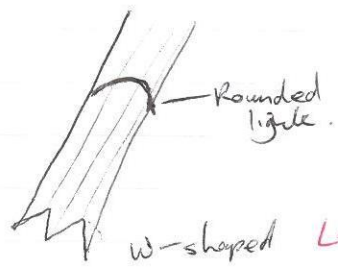
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# Emergent Reeds

REEDS

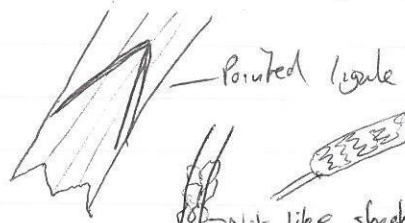
Great pond sedge

Carex riparia



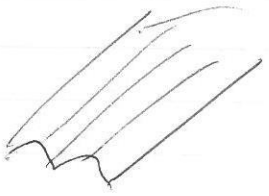
Lesser pond-sedge

Carex acutiformis



Blunt male flowers

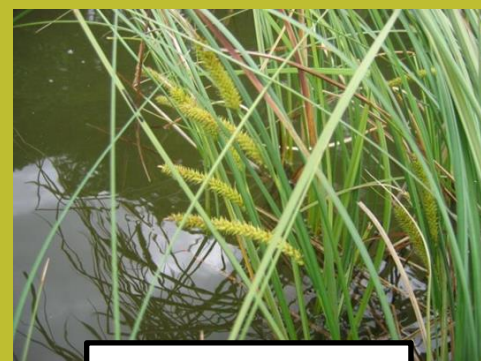
Carex acuta  
Slender tussock sedge



C. riparia



C. acutiformis



C. acuta

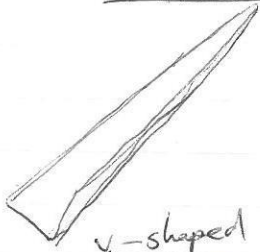


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# Emergent Reeds

REEDS

*Carex rostrata*  
Bottle Sedge



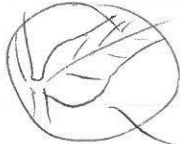
V-shaped



Notch

*Catabrosa aquatica*

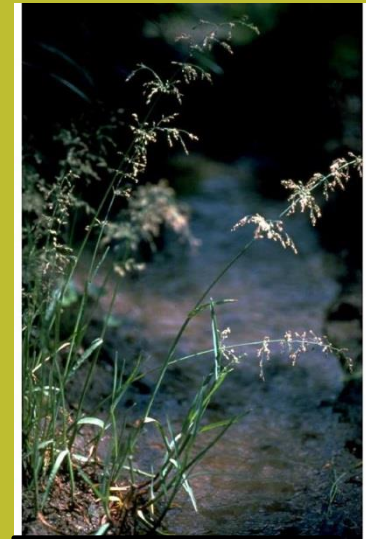
Parallel sides.



Inflated leaf bases



*C.rostrata*



*C.aquatica*



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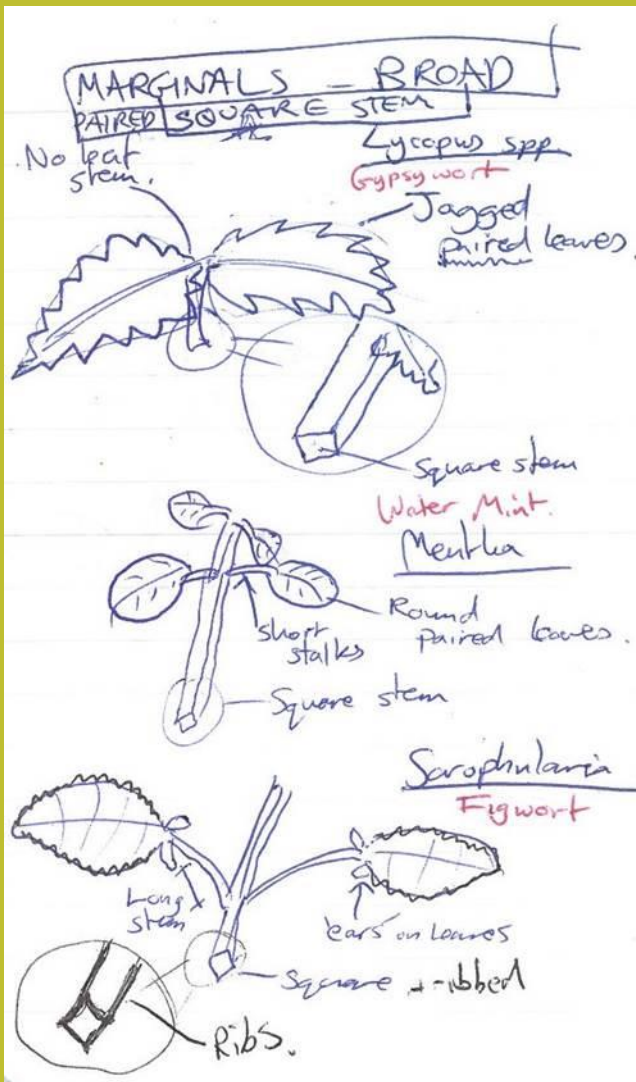
# Emergent Reeds

# Marginal Broad Leaf



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## Marginal Broad Leaf



Lycopus spp.



Mentha spp.

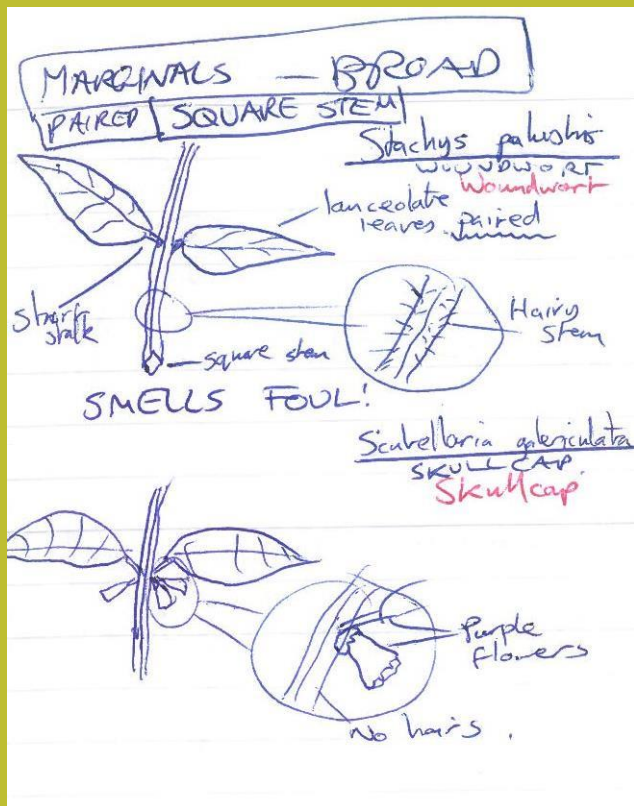


Scrophularia spp.



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**Paired leaves - Square Stem**  
**Marginal Broad Leaf**



*S. palustris*



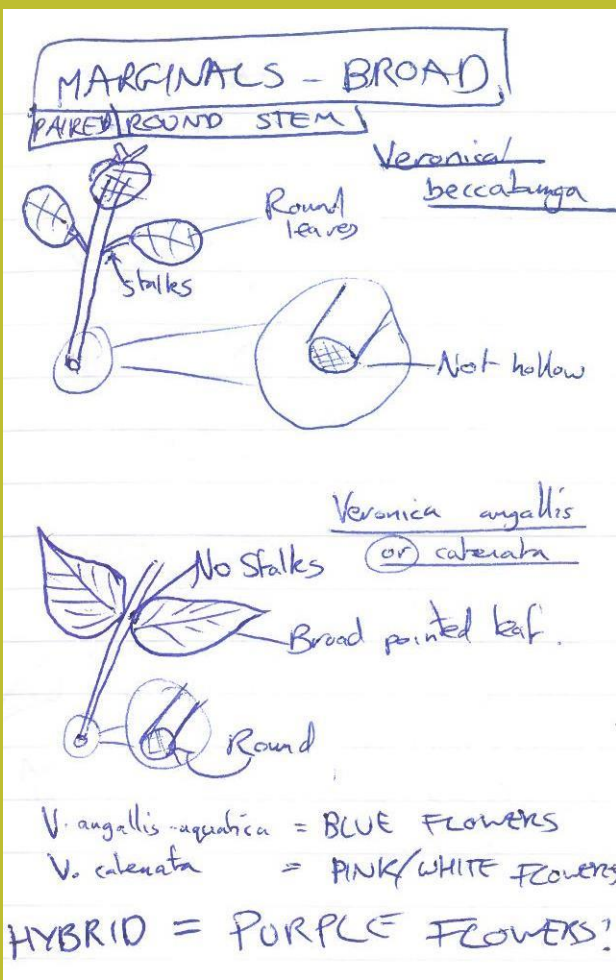
*S. galericulata*



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Paired leaves - Square Stem  
**Marginal Broad Leaf**





*V. beccabunga*



*V. angallis-aquatica*



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**Paired leaves - Round Stem**  
**Marginal Broad Leaf**

**MARGINALS - BROAD**

**PAIRED ROUND STEM**

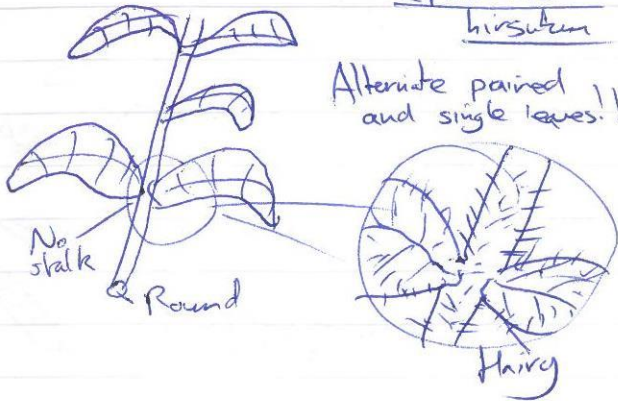


**BOTH / ROUND STEM**

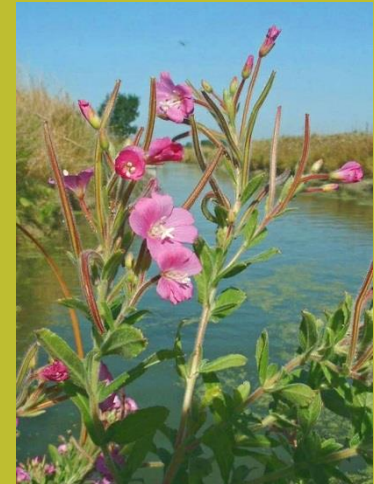
Willowherb.

Epilobium hirsutum

Alternate paired and single leaves!!



*V.scutellata*



*E.hirsutum*

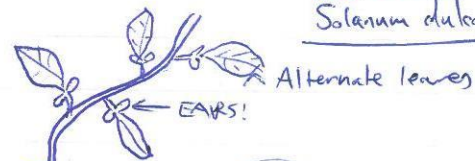


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**Paired leaves - Round Stem**  
**Marginal Broad Leaf**

**MARGINALS - BROAD**  
**SINGEE LEAF ROUND**

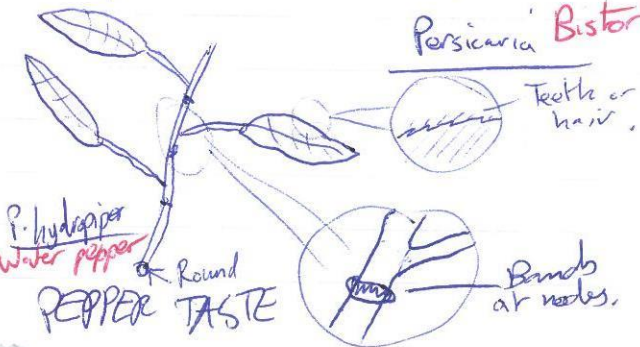
Bittersweet  
*Solanum dulcamara*



Water forget-me-not.  
*Myoschis scorpiodes*



*Persicaria Bistorta*



*S.dulcamara*



*M.scorpiodes*



*P.hydropiper*

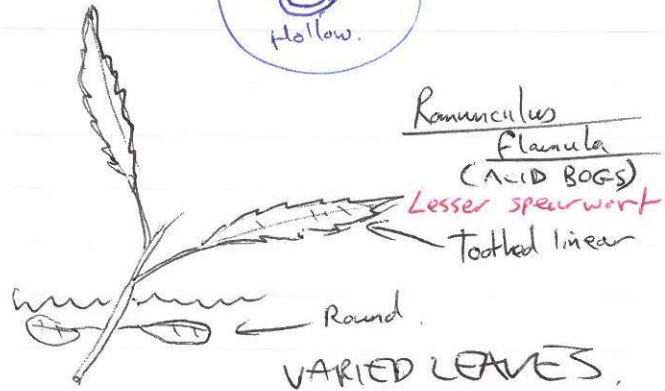
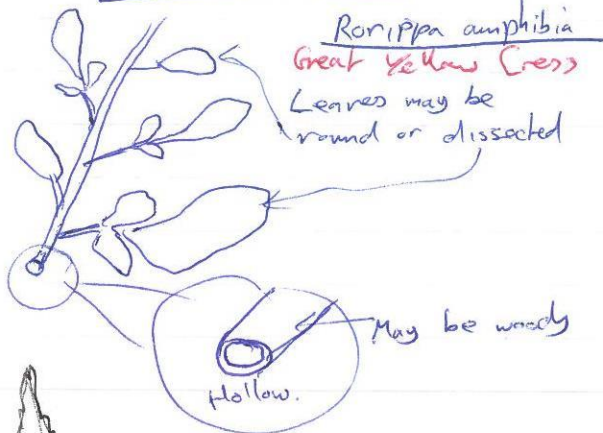


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**Alternate leaves - Round Stem**  
**Marginal Broad Leaf**

MARGINALS - BROAD

ALTERNATE ROUND



Also Ranunculus lingua (FENS).



R.amphibia



R.flammula

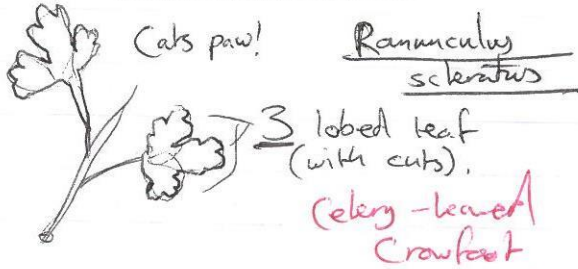


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Alternate leaves - Round Stem  
Marginal Broad Leaf

MARGINALS - BROAD

ALTERNATE | ROUND

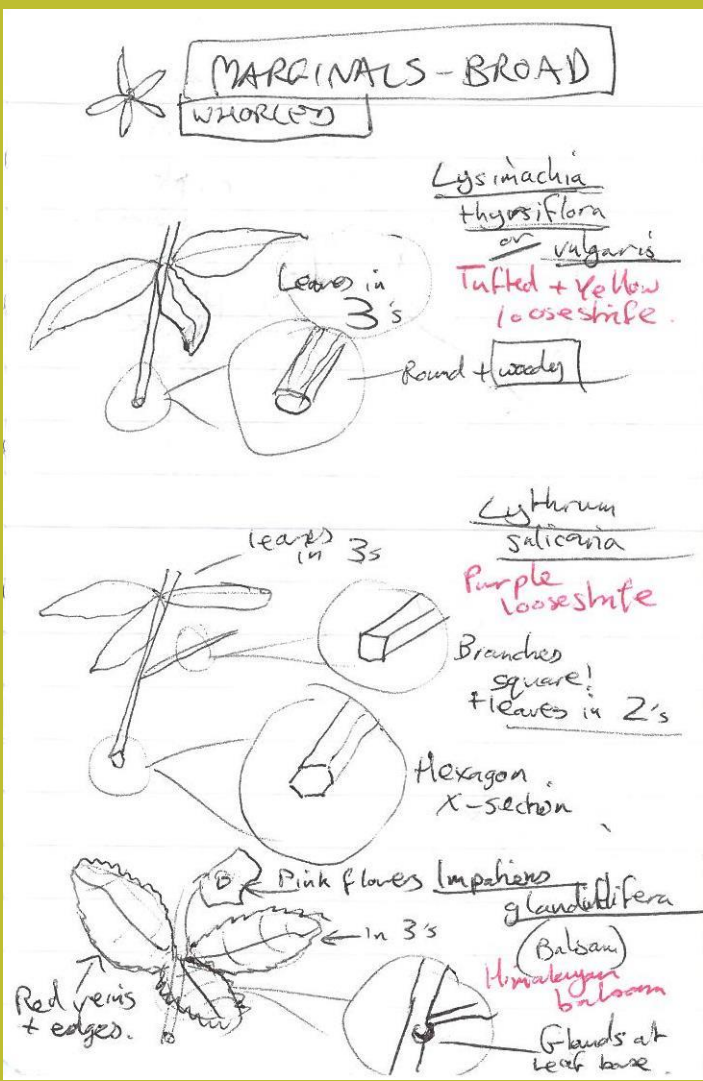


*R. sceleratus*



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## Alternate leaves - Round Stem Marginal Broad Leaf



*L.thyrsiflora*



*L.vulgaris*



*L.salicaria*



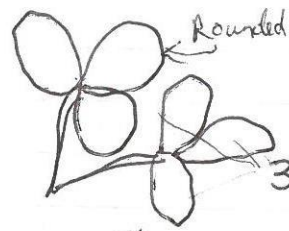
*I.glandulifera*



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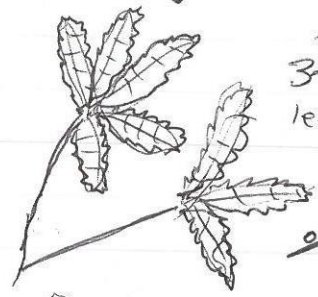
# Whorled leaves Marginal Broad Leaf

MARGINALS - BROAD LOBED



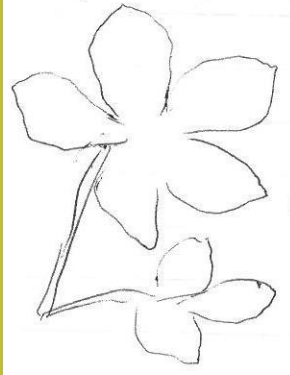
Bogbean  
Menyanthes trifoliata  
 (Bogbean).

3x leaflets per leaf



Potentilla palustris  
 Marsh cinquefoil  
 3-5 serrated leaflets per leaf.

or Potentilla erecta  
 Tormentil.



Marsh trefoil  
Lobus

pedunculatus  
 Like cuckoo leaf

Yellow flowers.



*M.trifoliata*



*L.pedunculatus*

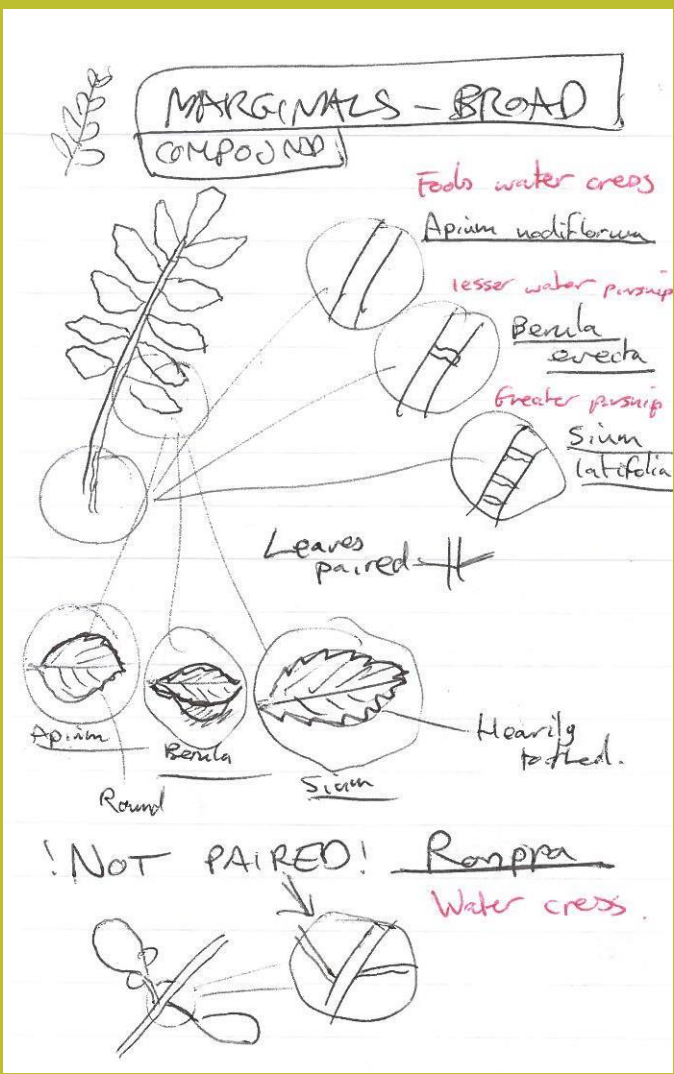


*P.palustris*

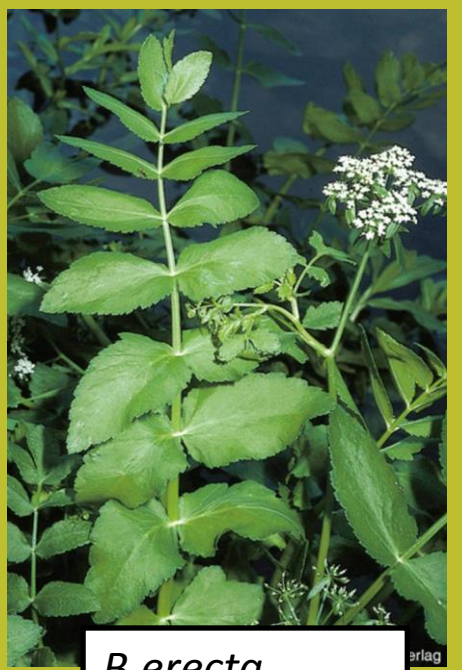


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Lobed leaves  
**Marginal Broad Leaf**



A.nodiflorum



B.erecta



S.latifolium



Rorippa spp.



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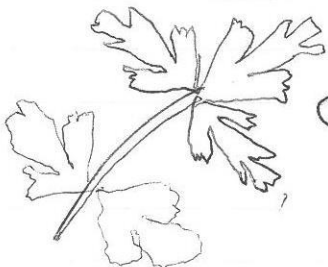
# Compound leaves Marginal Broad Leaf



**MARGINAL - BROAD**  
**COMPOUND**

Hemlock  
 Oenanthe  
 crocata  
 (Water dropwort)

CAT PAW  
 SHAPE



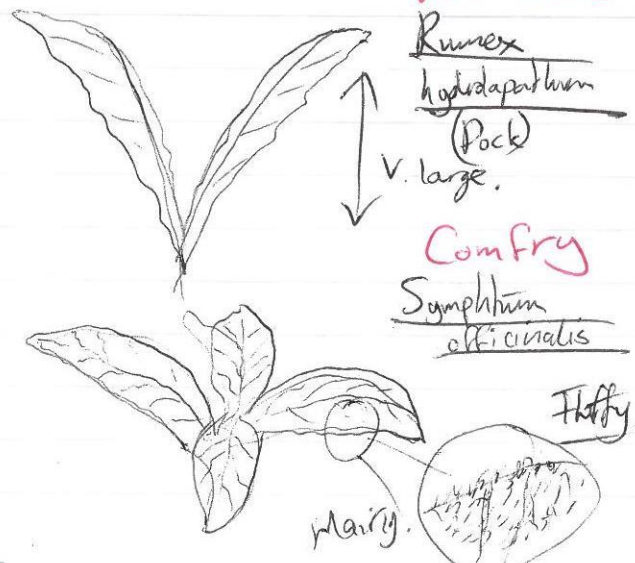
**LARGE LEAF**

Water dock  
 Rumex  
 hydrolapathum  
 (Dock)  
 v. large.

Comfrey  
 Symphium  
 officinalis

Thick

Marg.




O.crocata



R.hydrolapathum

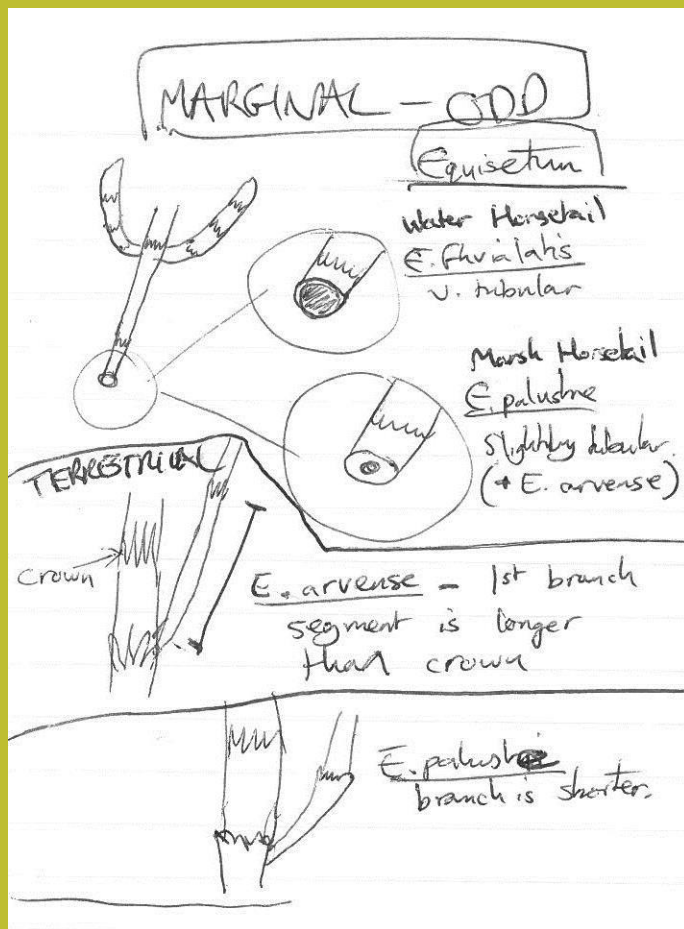


S.officinalis



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**Compound leaves**  
**Marginal Broad Leaf**



**E.fluviatilis**



**E.palustre**

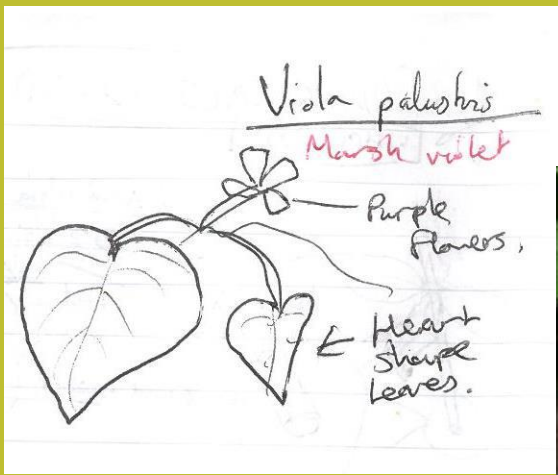


**E.arvense**



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**Odd leaves**  
**Marginal Broad Leaf**

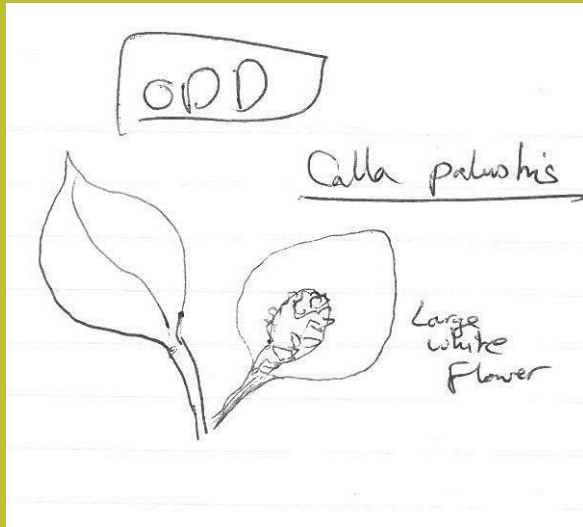


*V. palustris*



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**Odd leaves**  
**Marginal Broad Leaf**



*C.palustris*



Bedfordshire  
Cambridgeshire  
Northamptonshire

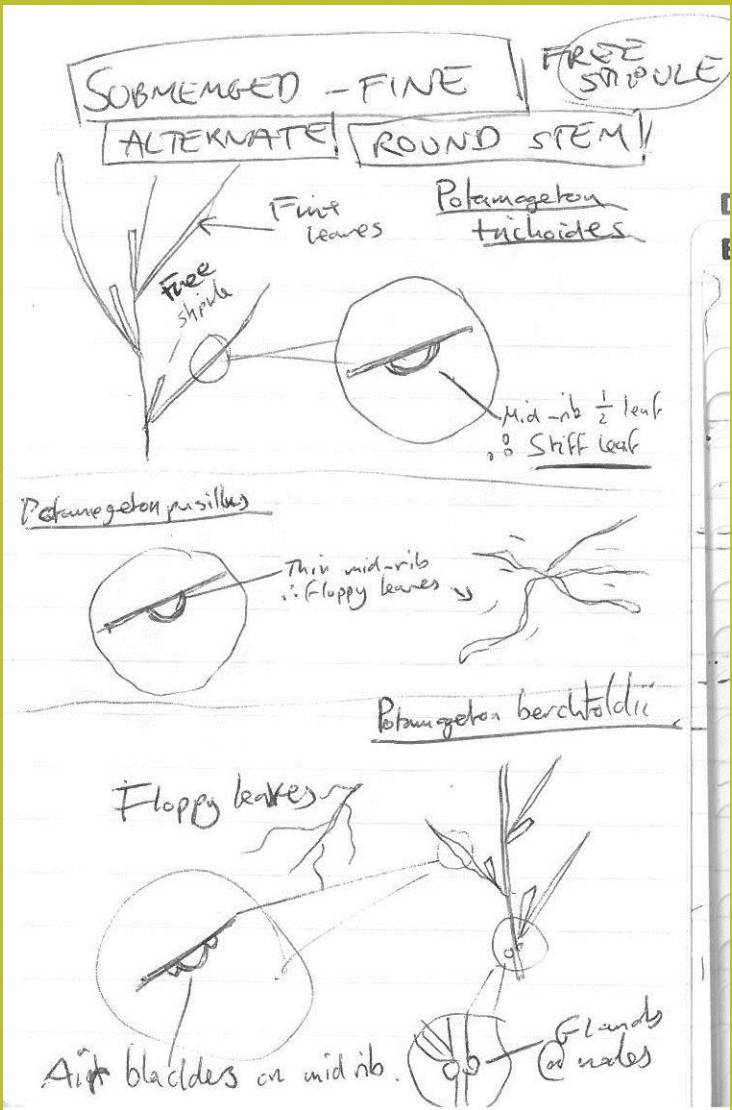
**Odd leaves**  
**Marginal Broad Leaf**

# Submerged Fine leaf



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**Submerged Fine Leaf** 25



P.trichoides



P.pusillus

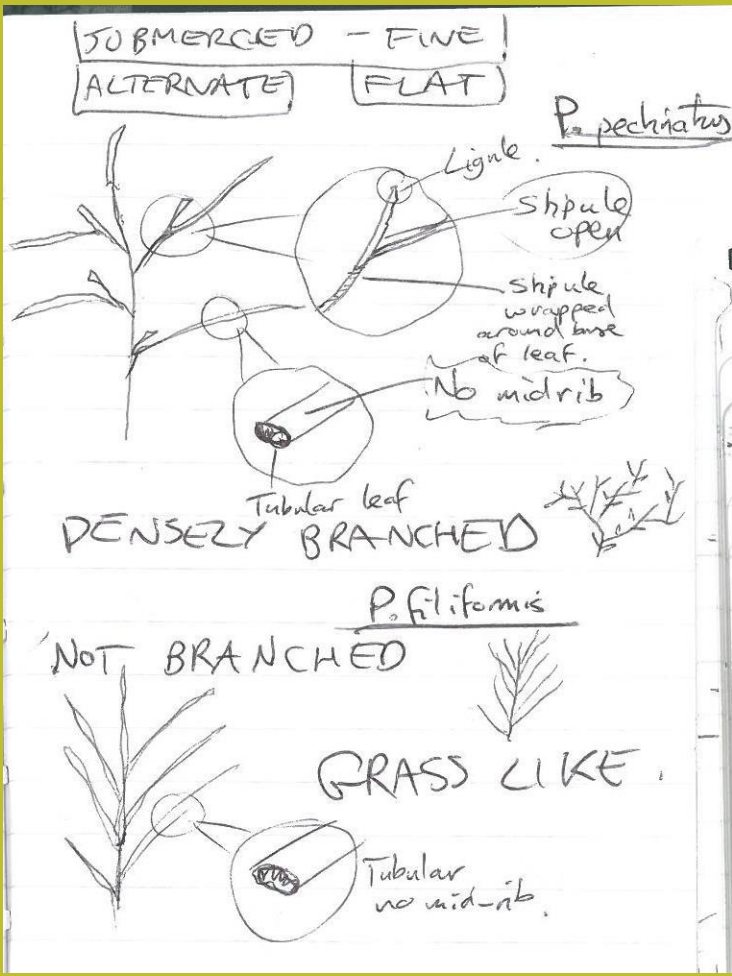


P.berchtoldii



Bedfordshire  
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Alternate leaves - Round stem  
**Submerged Fine Leaf**



*P. pectinatus*

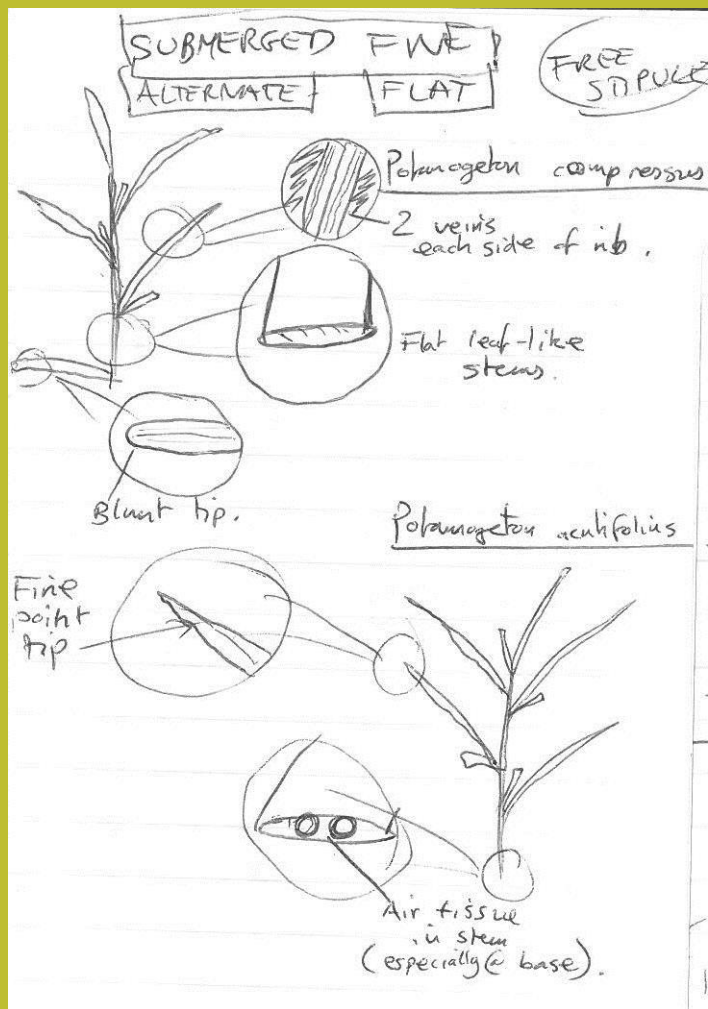


*P. filiformis*



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**Alternate leaves - Flat stem**  
**Submerged Fine Leaf** 27



*P.compressus*



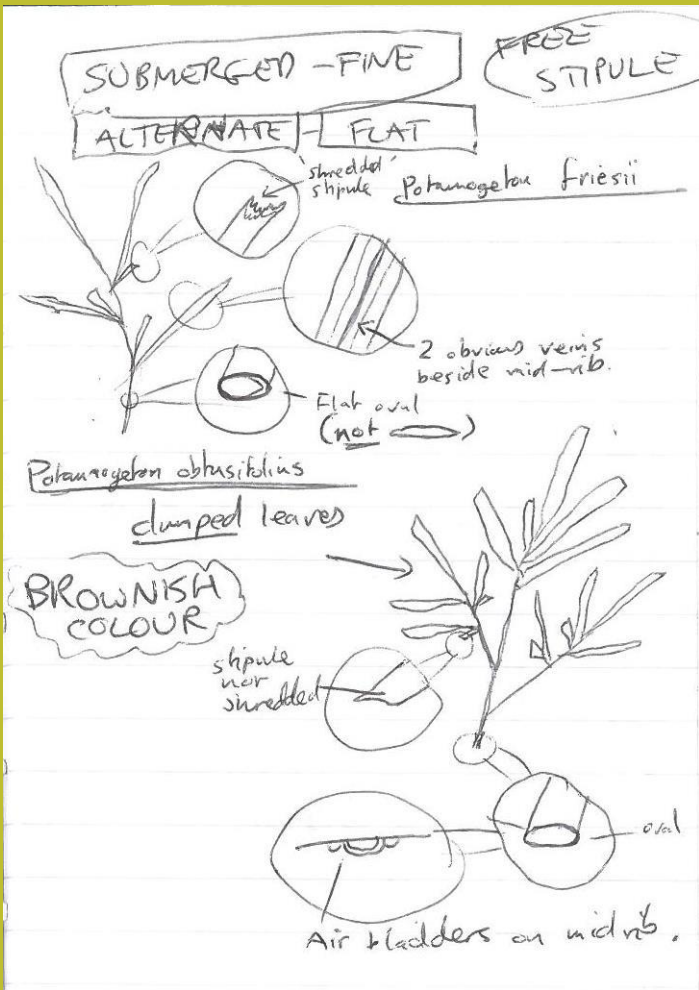
*P.acutifolius*



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**Alternate leaves - Flat stem**  
**Submerged Fine Leaf** 28





*P.friesii*

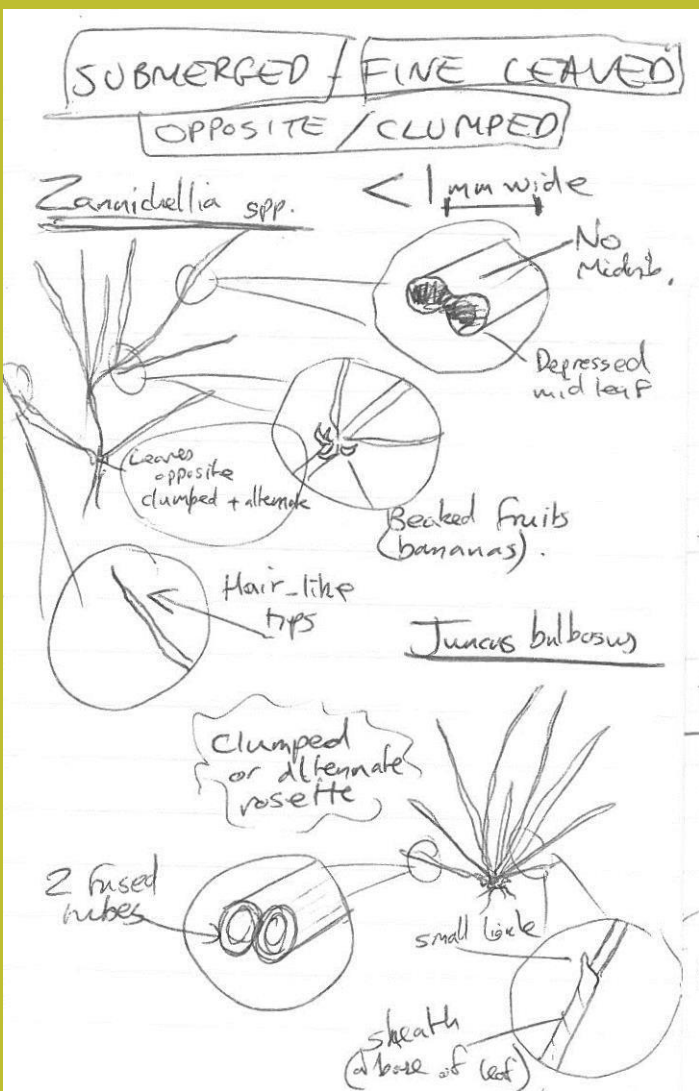


*P.obtusifolius*



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**Alternate leaves - Flat stem**  
**Submerged Fine Leaf**



*Zannichaellia* spp.

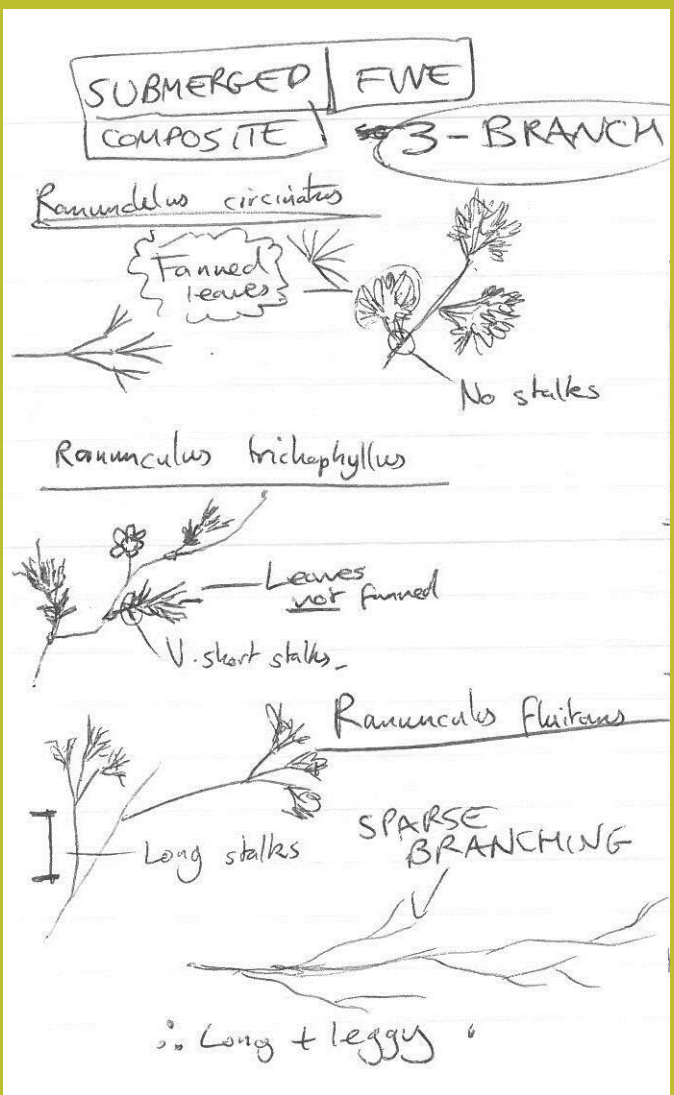


*J. bulbosus*



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**Opposite/Clumped leaves**  
**Submerged Fine Leaf** 30



*R.circinatus*



*R.trichophyllus*



*R.fluitans*



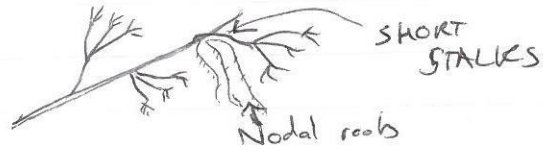
Bedfordshire  
Cambridgeshire  
Northamptonshire

Composite leaves

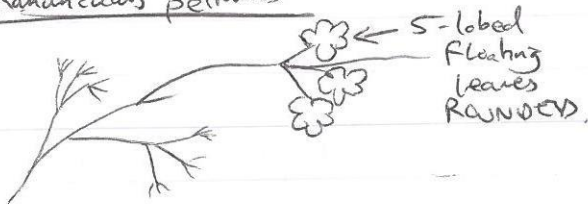
# Submerged Fine Leaf

SUBMERGED - FINE  
COMPOSITE

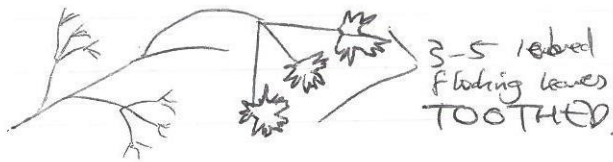
*Ranunculus pseudofluitans*



*Ranunculus peltatus*



*Ranunculus aquatilis*



*R.pseudofluitans*



*R.peltatus*

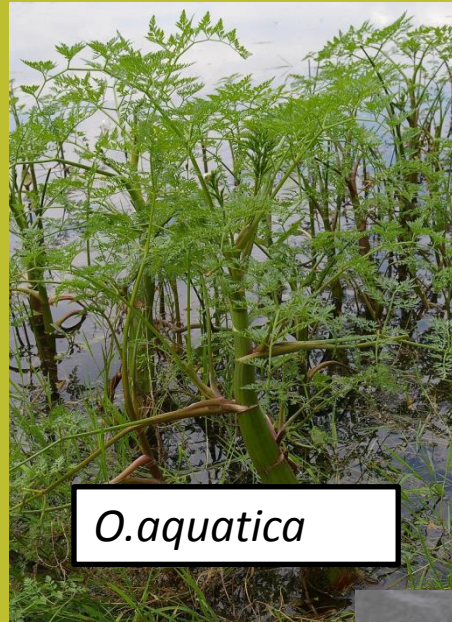
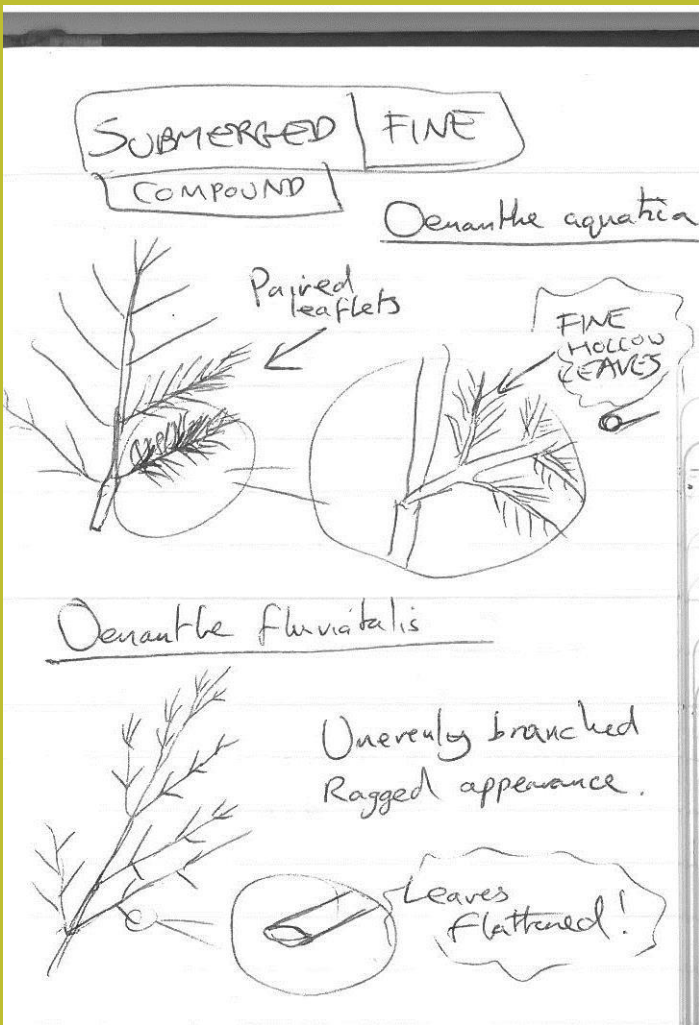


*R.aquatilis*



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Composite leaves  
**Submerged Fine Leaf** 32



O.aquatica

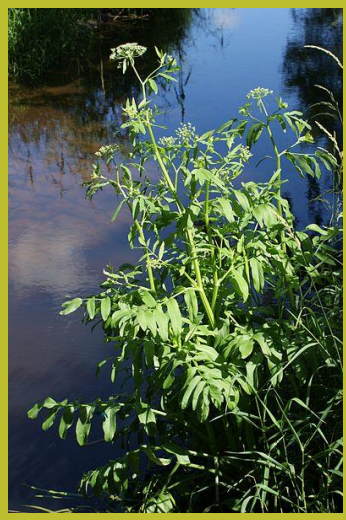
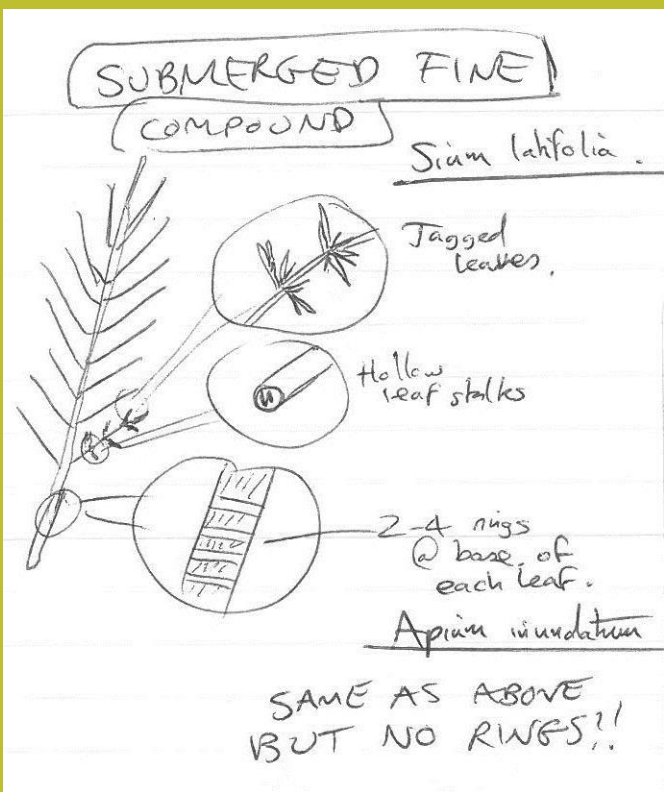


O.fluviatilis



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**Compound leaves**  
**Submerged Fine Leaf** 33



*S. latifolia*



*A. inundatum*



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**Compound leaves**  
**Submerged Fine Leaf** 34

# Submerged Whorls

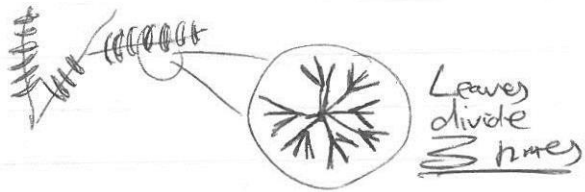


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## Submerged Whorls

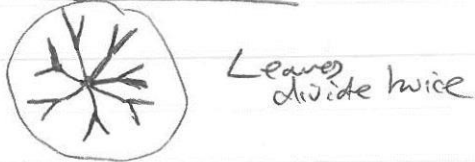
# SUBMERGED WHORLS

Ceratophyllum submersum



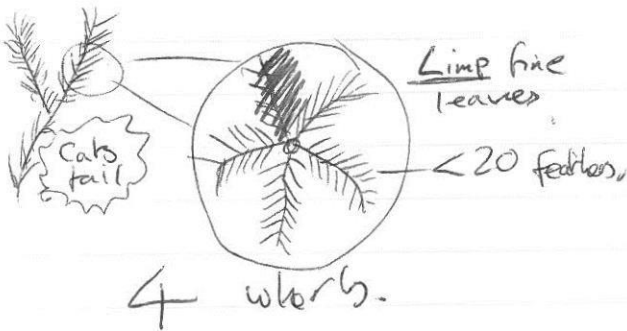
C.submersum

Ceratophyllum demersum



C.demersum

Myriophyllum alterniflorum



M.alterniflorum



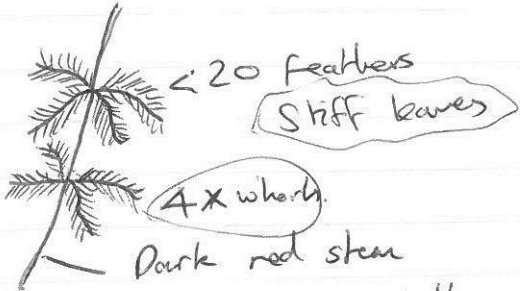
Bedfordshire  
Cambridgeshire  
Northamptonshire

# Submerged Whorls

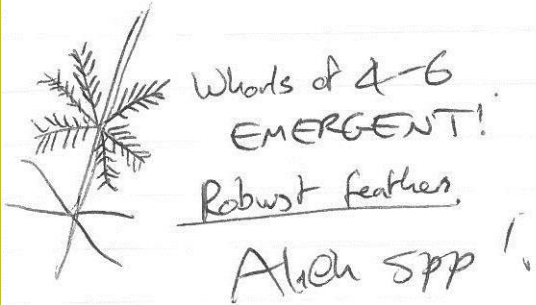


# SUBMERGED WHORLS

*Myriophyllum spicatum*



*Myriophyllum aquaticum*



*M.spicatum*



*M.aquaticum*

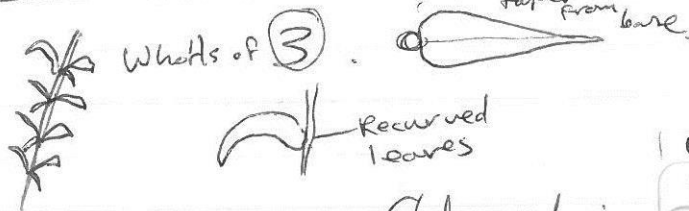


Bedfordshire  
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Northamptonshire

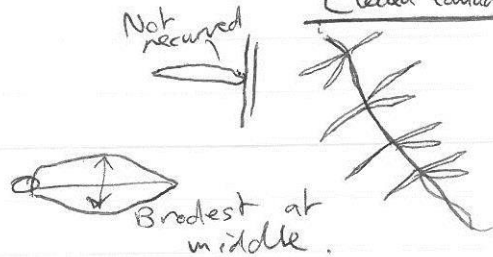
# Submerged Whorls

# SUBMERGED WHORLS

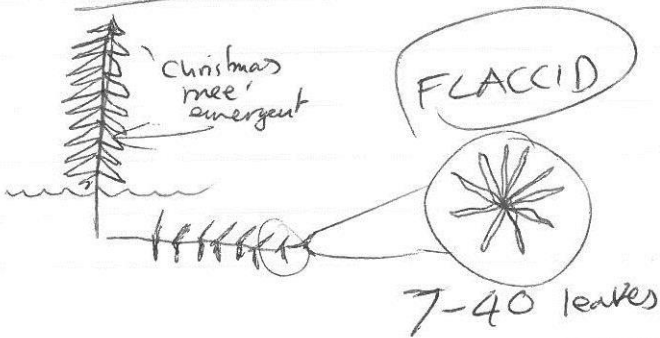
*Elodea nutallii*



*Elodea canadensis*



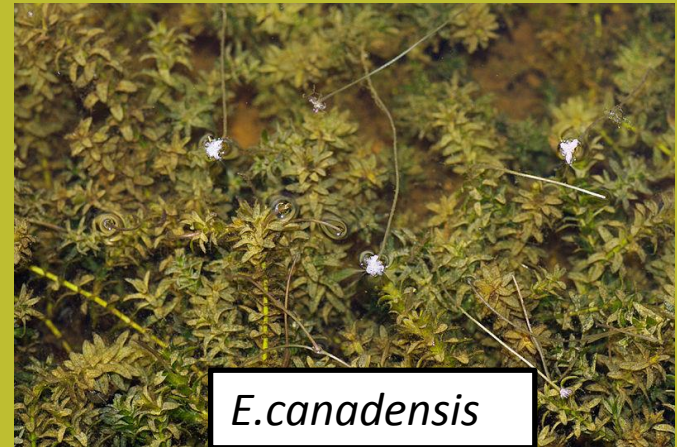
*Hippuris vulgaris*



*E.nutallii*



*H.vulgaris*

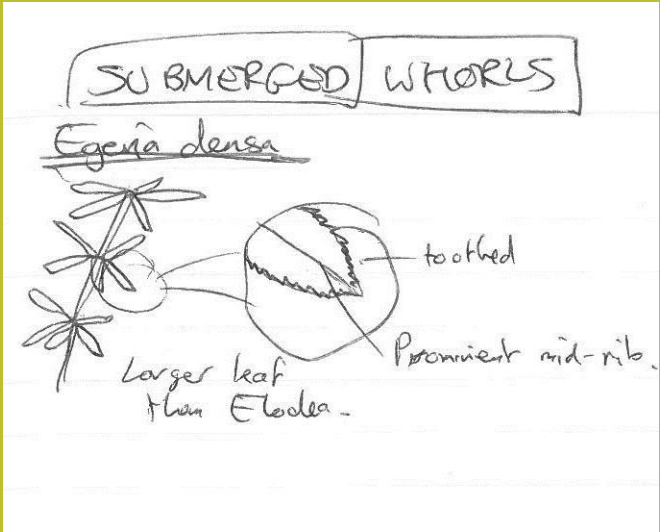


*E.canadensis*



Bedfordshire  
Cambridgeshire  
Northamptonshire

# Submerged Whorls



*E.densa*

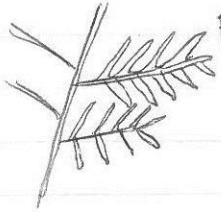


Bedfordshire  
Cambridgeshire  
Northamptonshire

# Submerged Whorls

SUBMERGED WHORL-LIKE!

Hottonia palustris

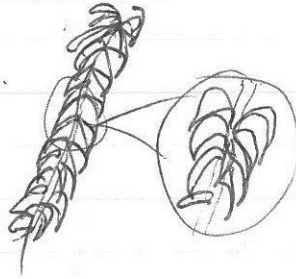


FLAT-FEATHER

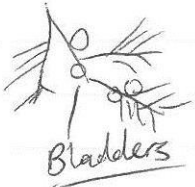
Not-whorled.

Lagarosiphon majus

- o Crunchy leaves.
- o Tightly curled
- o Not-whorled.



Utricularia spp.



Leaves not quite whorled.

Bladders



*H. palustris*



*Utricularia spp.*



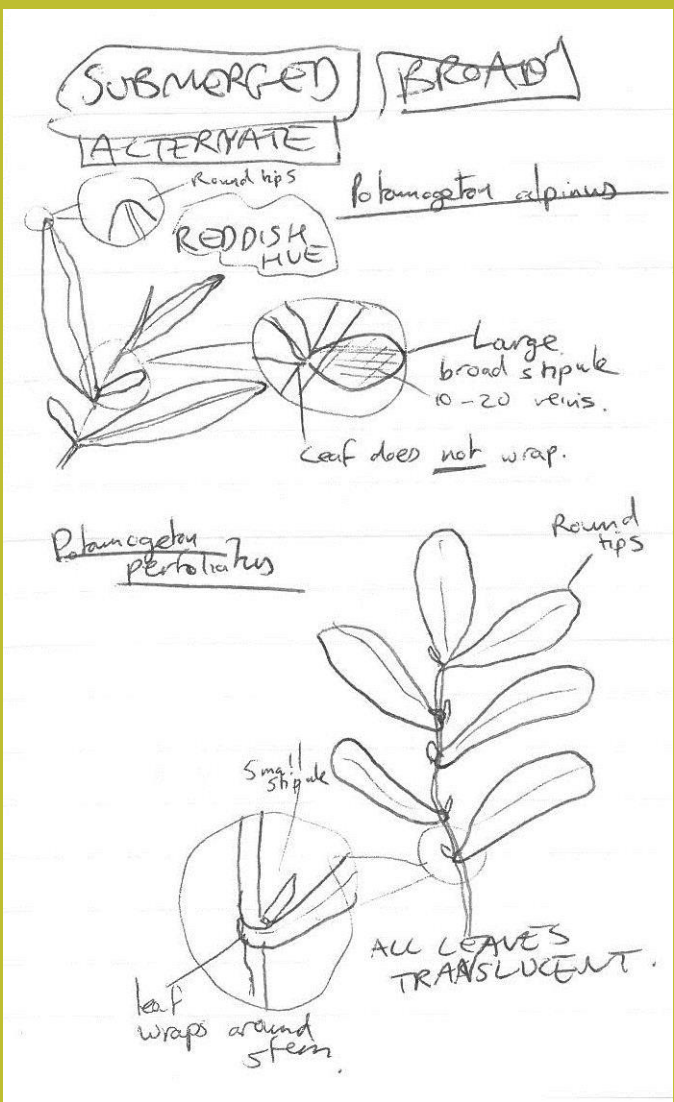
*L. major*

# Submerged Broad Leaf



Bedfordshire  
Cambridgeshire  
Northamptonshire

# Submerged Broad Leaf



*P.alpinus*

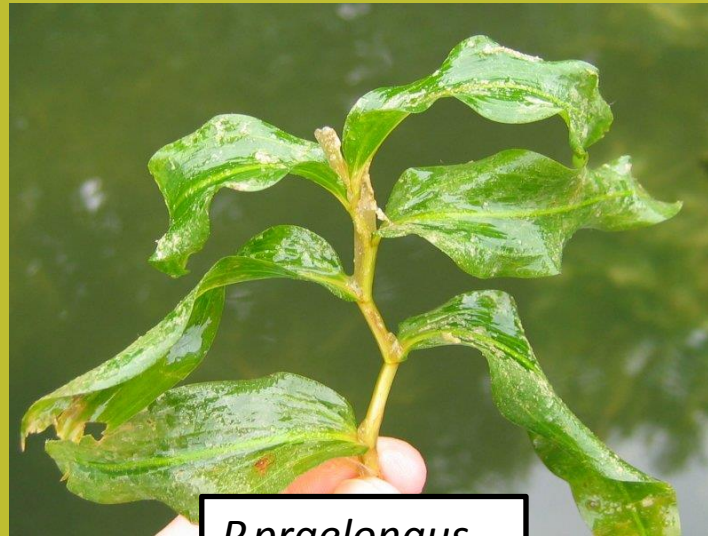
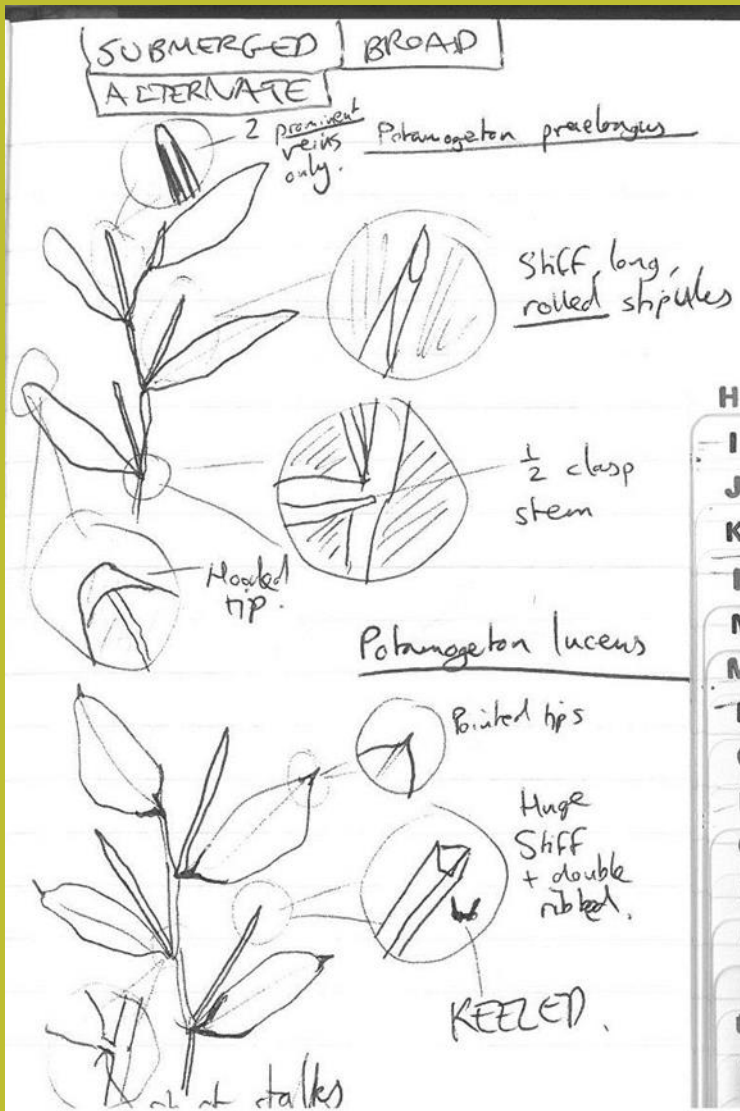


*P.perfoliatus*

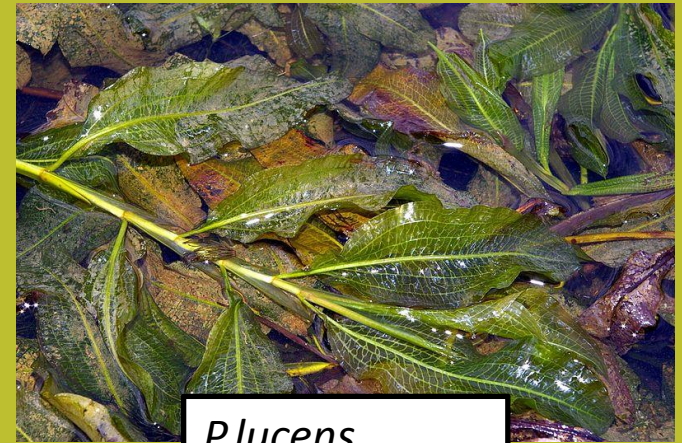


Bedfordshire  
 Cambridgeshire  
 Northamptonshire

**Alternate leaves**  
**Submerged Broad Leaf**



*P. praelongus*



*P. lucens*

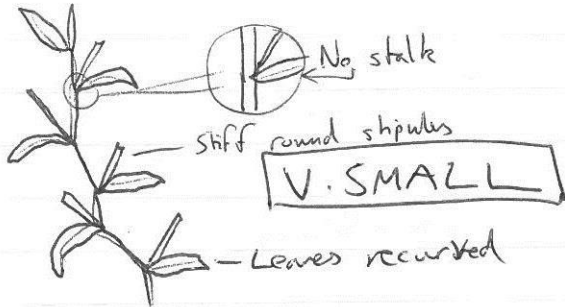


Bedfordshire  
 Cambridgeshire  
 Northamptonshire

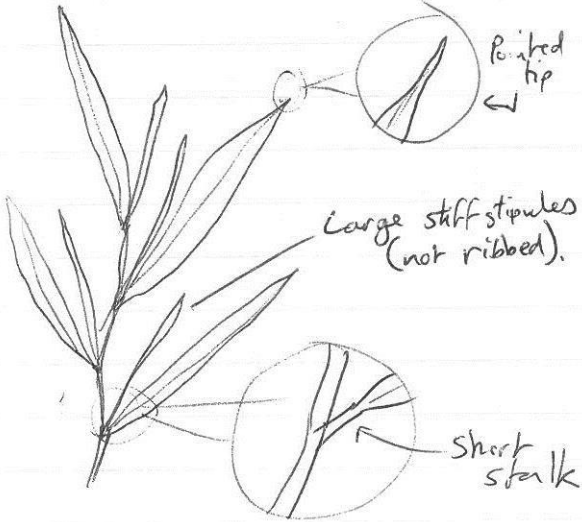
**Alternate leaves**  
**Submerged Broad Leaf**

SUBMERGED | BROAD  
ALTERNATE

*Potamogeton gramineus*



*Potamogeton nodosus*



*P.gramineus*



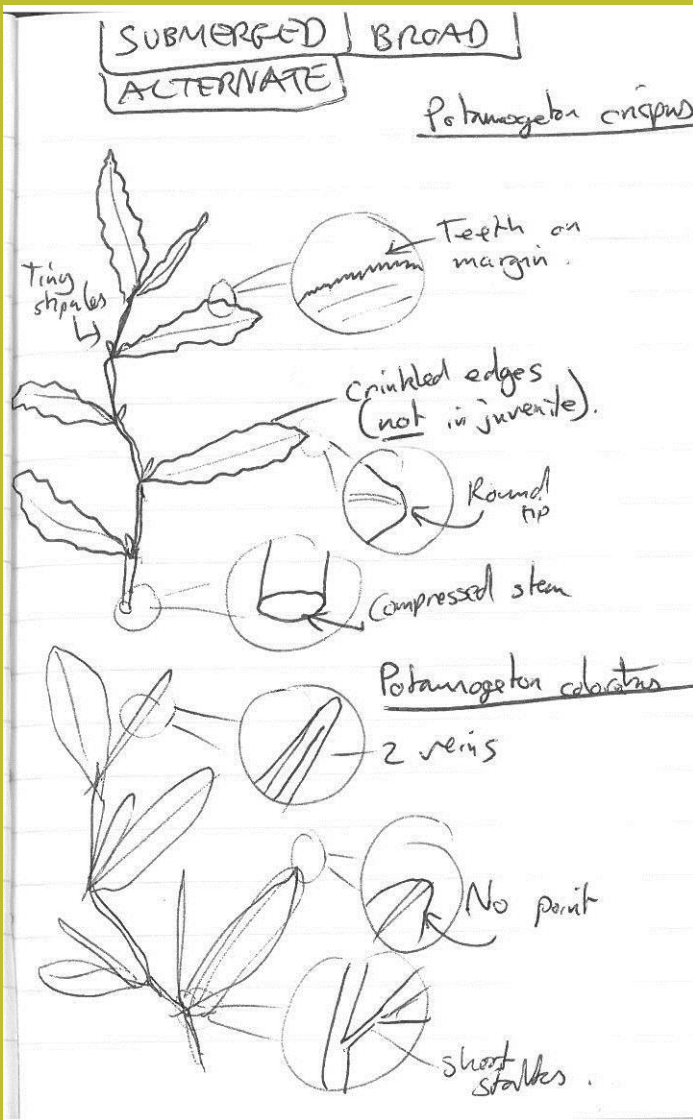
*P.nodosus*



Bedfordshire  
Cambridgeshire  
Northamptonshire

# Alternate leaves Submerged Broad Leaf





*P.crispus*



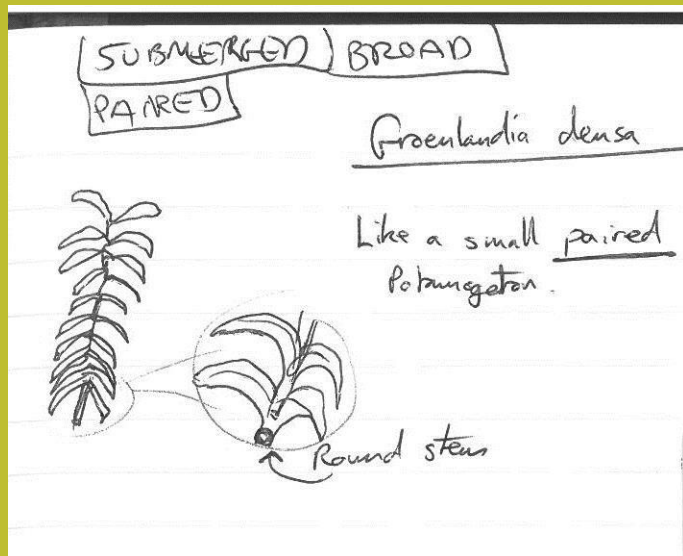
*P.coloratus*



Bedfordshire  
Cambridgeshire  
Northamptonshire

# Alternate leaves

# Submerged Broad Leaf



*G.densa*



Bedfordshire  
Cambridgeshire  
Northamptonshire

**Paired leaves**  
**Submerged Broad Leaf**

# Floating Leaf

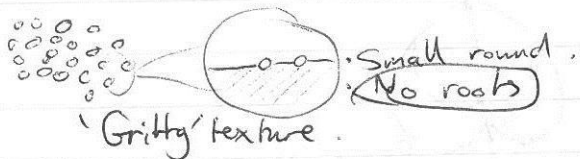


Bedfordshire  
Cambridgeshire  
Northamptonshire

## Floating Leaf

**FLOATING SMALL**

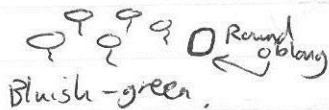
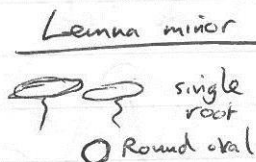
*Wolffia arrhiza*



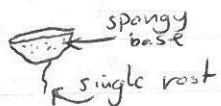
*Spirodela polyrrhiza*



*Lemna minor*



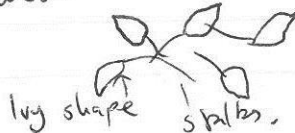
*Lemna gibba*



*Azolla filiculoides*



*Lemna trisulca*



*W. arrhiza*



*S. polyrrhiza*



*L. minor*



*L. minuta*



*L. gibba*



*A. filiculoides*



*L. trisulca*

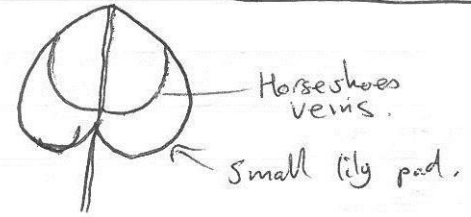


Bedfordshire  
Cambridgeshire  
Northamptonshire

**Free-floating**  
**Floating Leaf**

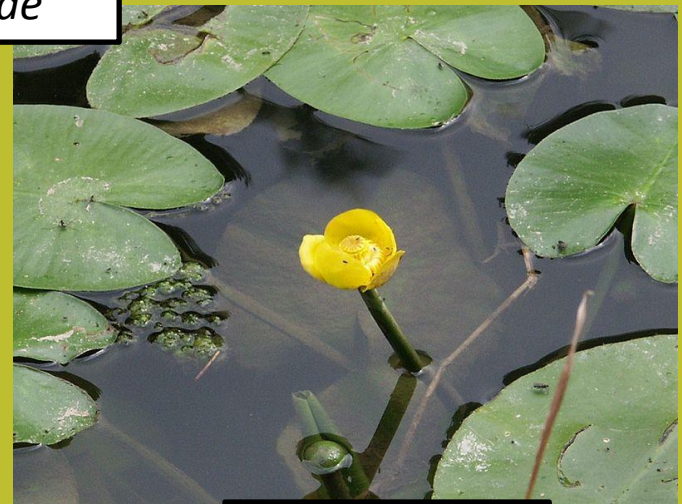
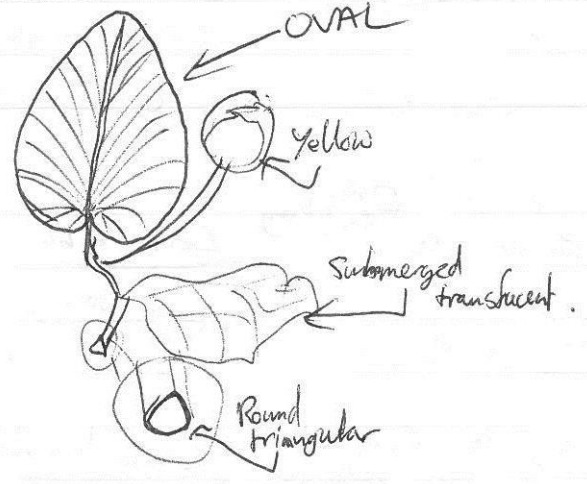
FLOATING | ROOTED

*Hydrocharis morsus-ranae*



*H. morsus-ranae*

*Nuphar lutea*



*N. lutea*

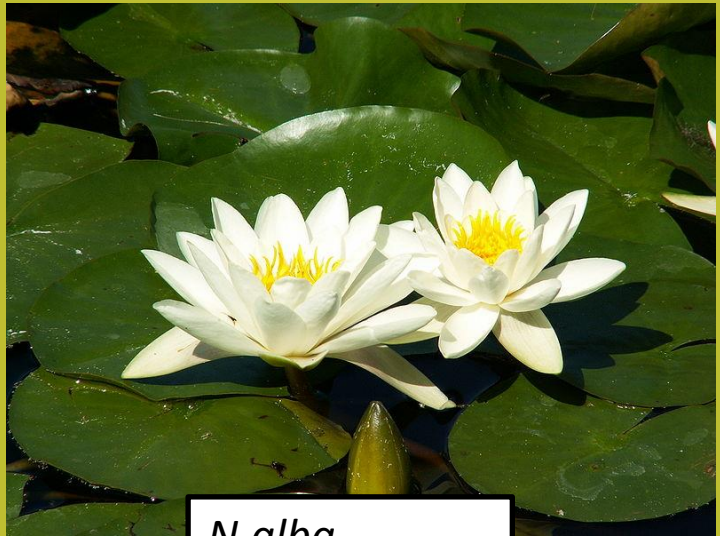
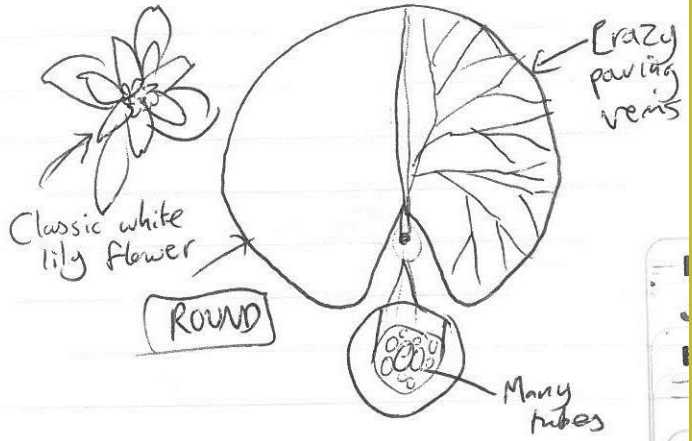


Bedfordshire  
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Northamptonshire

**Rooted**  
**Floating Leaf**

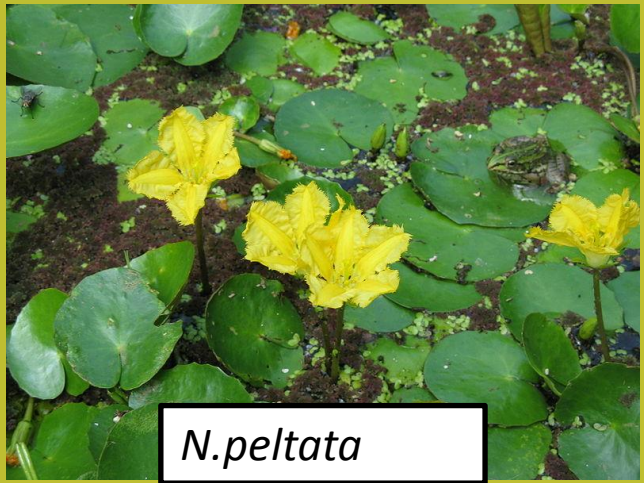
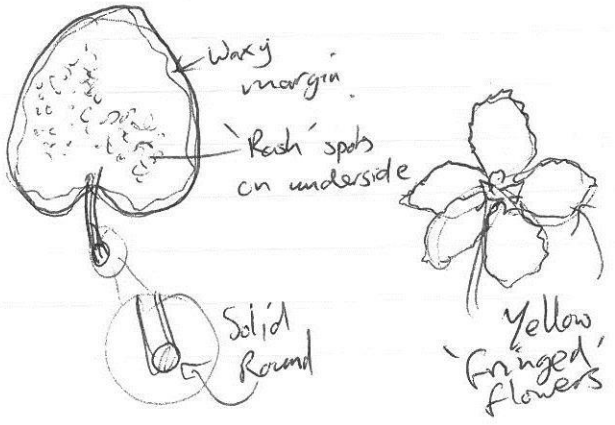
FLOATING | ROOTED

*Nymphaea alba*



*N.alba*

*Nymphaeoides peltata*



*N.peltata*

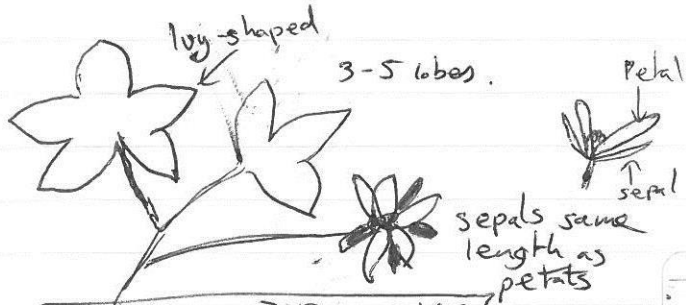


Bedfordshire  
 Cambridgeshire  
 Northamptonshire

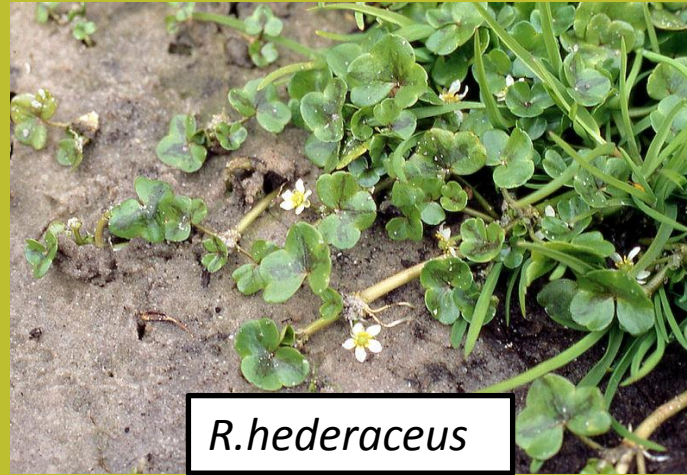
**Rooted**  
**Floating Leaf**

FLOATING | ROOTED

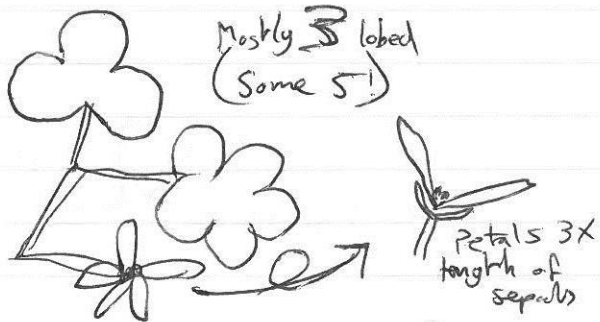
*Ranunculus hederaceus*



NO UNDERWATER LEAVES



*Ranunculus omiophyllus*



NO UNDERWATER LEAVES



Bedfordshire  
Cambridgeshire  
Northamptonshire

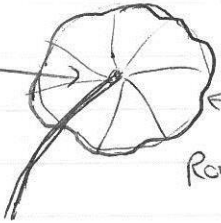
# Rooted Floating Leaf

Rooted

FLOATING

*Hydrocotyle vulgaris*

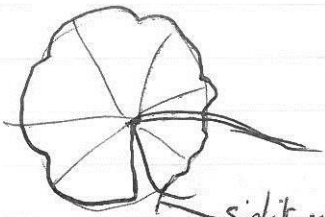
Stalk from centre



Round leaf

*Hydrocotyle ranunculoides*

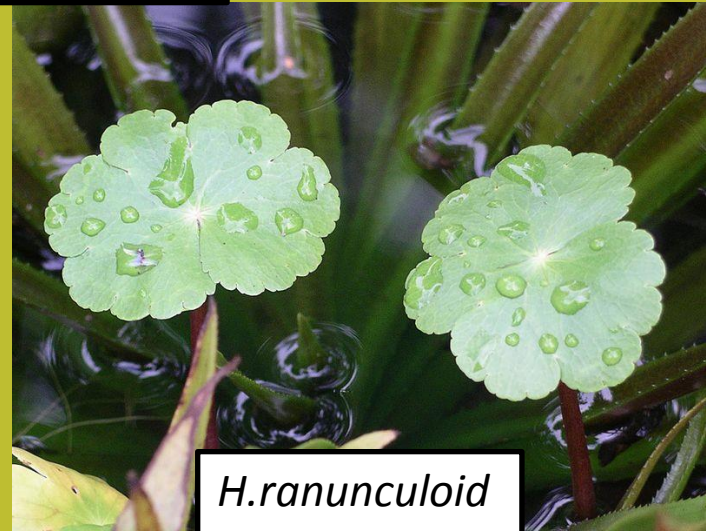
ALIEN



split up to stalk.



*H.vulgaris*



*H.ranunculoides*



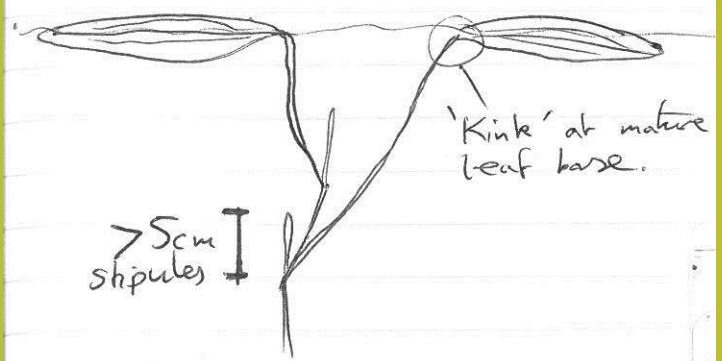
Bedfordshire  
Cambridgeshire  
Northamptonshire

# Rooted Floating Leaf

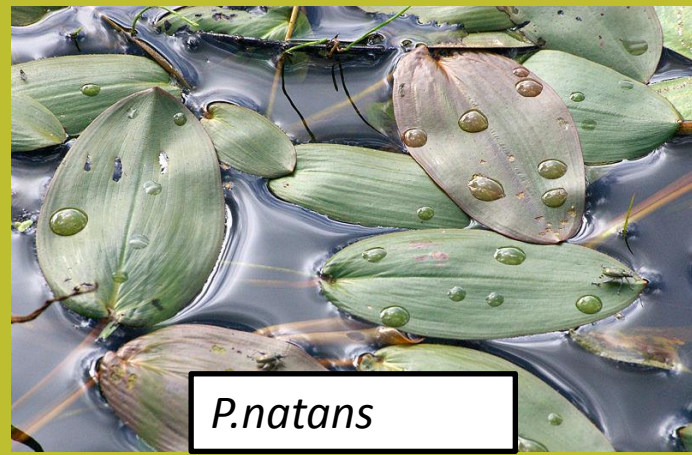
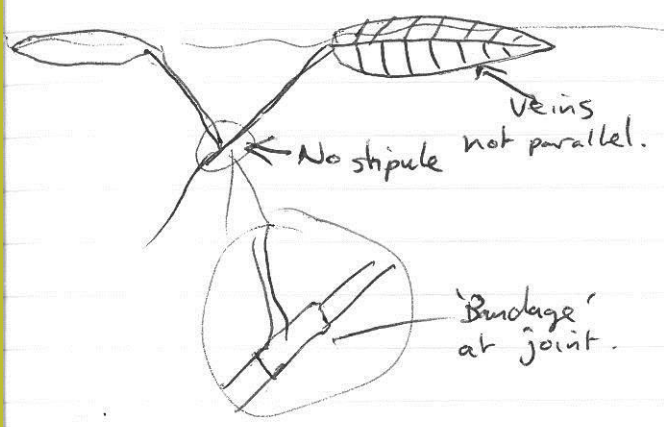


FLOATING | ROOTED |

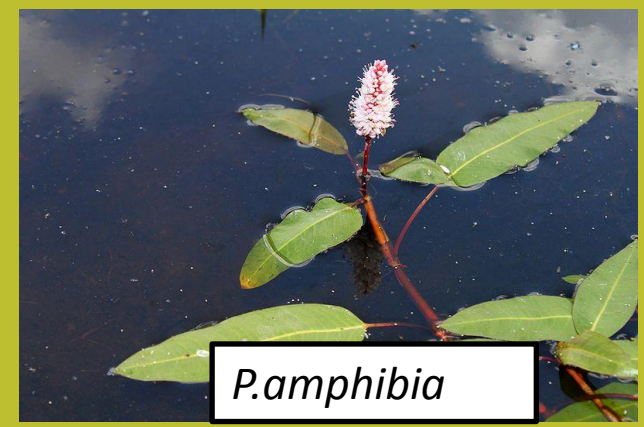
Potamogeton natans



Persicaria amphibia



*P.natans*



*P.amphibia*

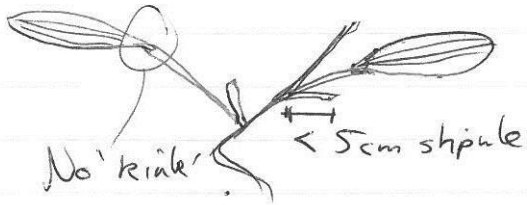


Bedfordshire  
Cambridgeshire  
Northamptonshire

# Rooted Floating Leaf

[ FLOATING | ROOTED ]

*Potamogeton polygonifolius*



*P. polygonifolius*



Bedfordshire  
Cambridgeshire  
Northamptonshire

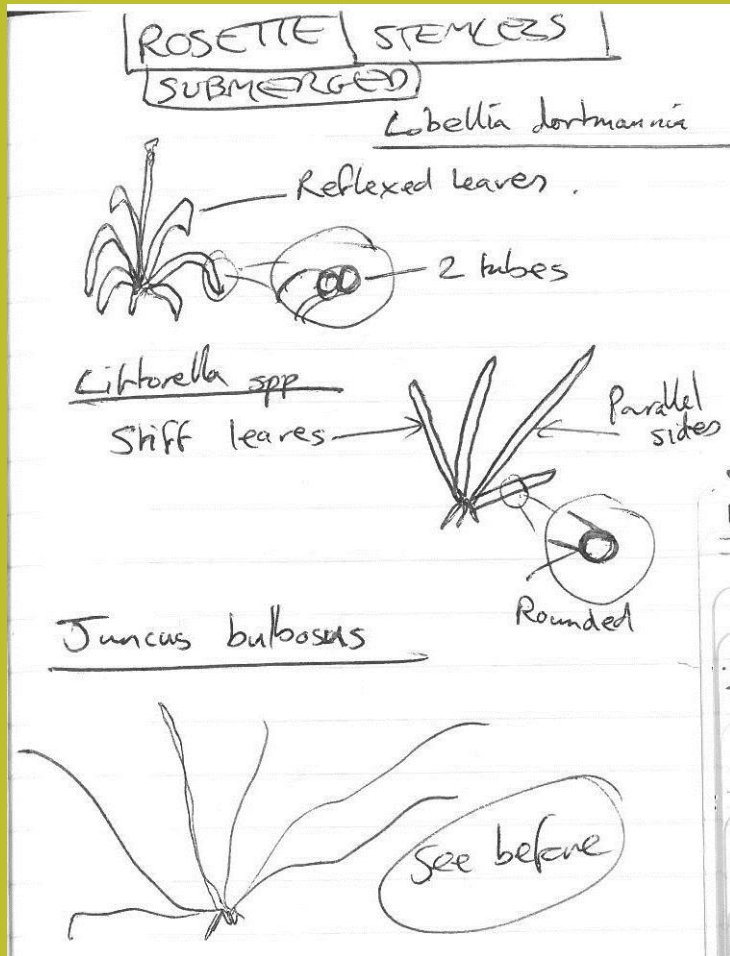
# **Routed** Floating Leaf

# Submerged Rosette



Bedfordshire  
Cambridgeshire  
Northamptonshire

## Submerged Rosette



*L.dortmannia*



*Littorella* spp.

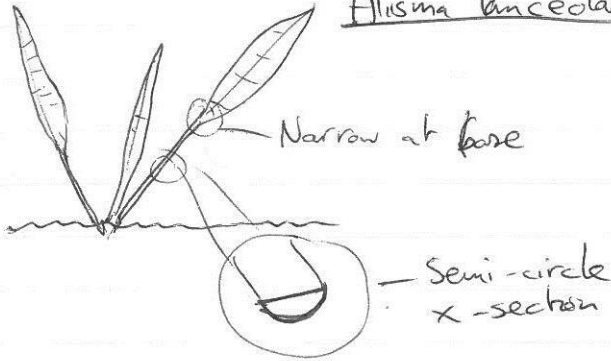


Bedfordshire  
Cambridgeshire  
Northamptonshire

# Submerged Rosette

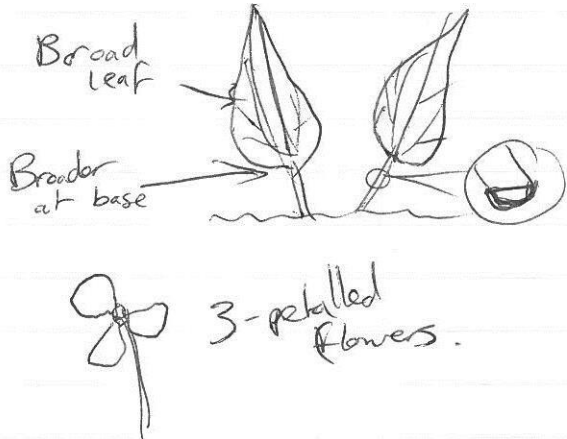
(ROSETTE) SUBMERGED

*Alisma lanceolatum*



*A.lanceoloata*

*Alisma plantago-aquatica*



*A.plantago-aquatica*



Bedfordshire  
Cambridgeshire  
Northamptonshire

# Submerged Rosette

# Bryophytes

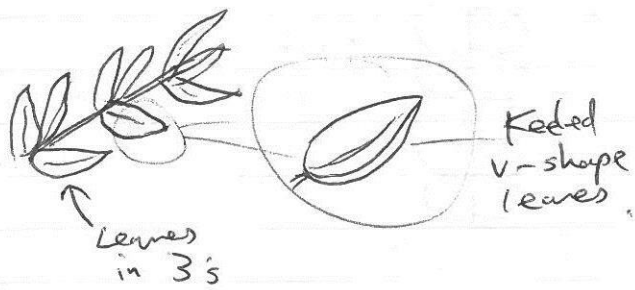


Bedfordshire  
Cambridgeshire  
Northamptonshire

# Bryophytes

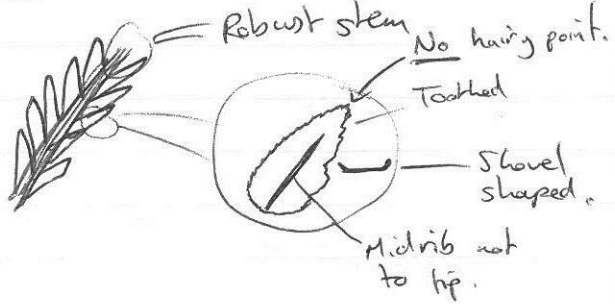
**BRYOPHYTES**

*Funaria antipyretica*



*F. antipyretica*

*Rhyacostegium riparoides*



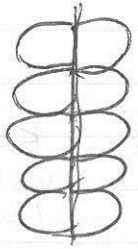
*R. riparoides*



Bedfordshire  
Cambridgeshire  
Northamptonshire

# Bryophytes

Chiloscyphus polyanthos



- Flat
- Perpendicular 'leaves'



*C. polyanthos*



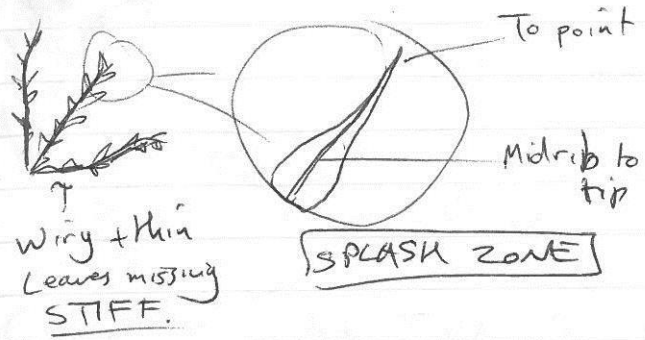
Bedfordshire  
Cambridgeshire  
Northamptonshire

# Bryophytes



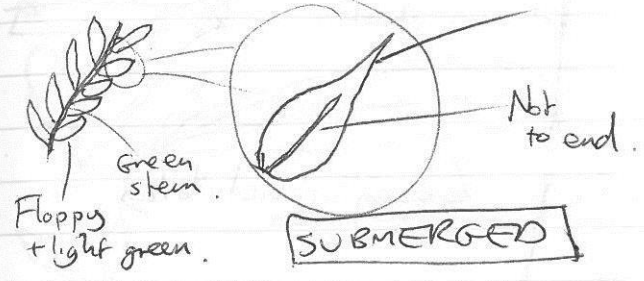
**Bryophytes**

*Amblystegium fluviatile*



*A.fluviatile*

*Amblystegium riparium*

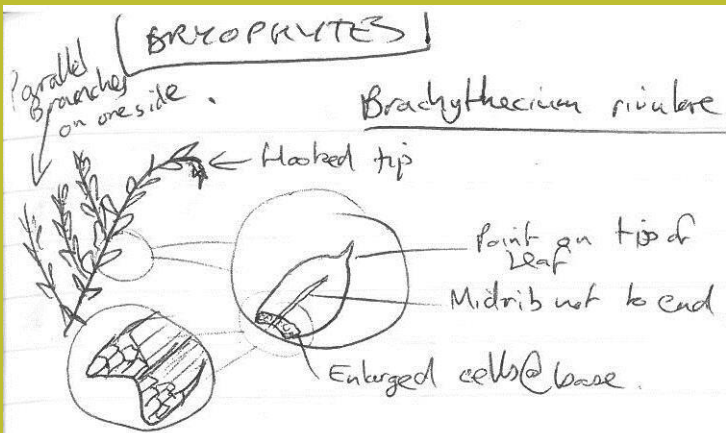


*A.riparium*



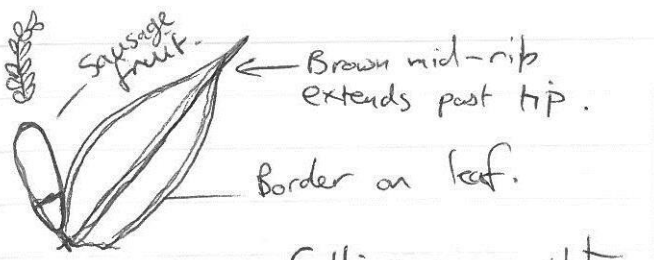
Bedfordshire  
Cambridgeshire  
Northamptonshire

# Bryophytes



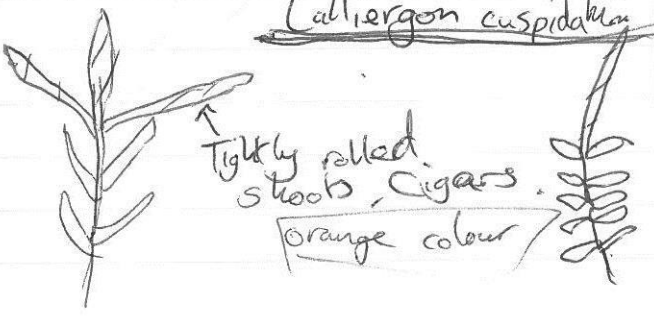
*B.rivulare*

Cinclidotus fontinaloides



*C.fontinaloides*

Calliergon cuspidatum



*C.cuspidatum*

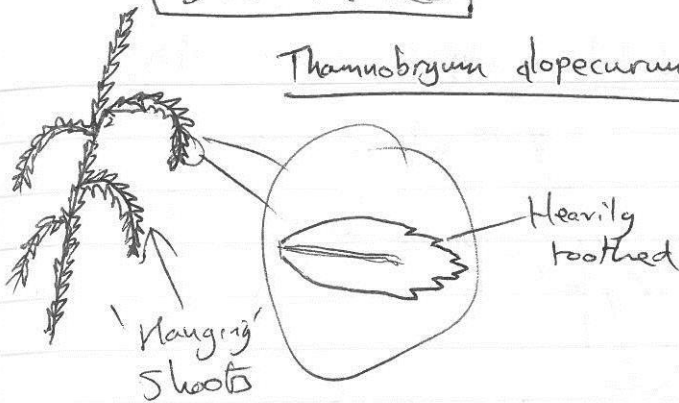


Bedfordshire  
Cambridgeshire  
Northamptonshire

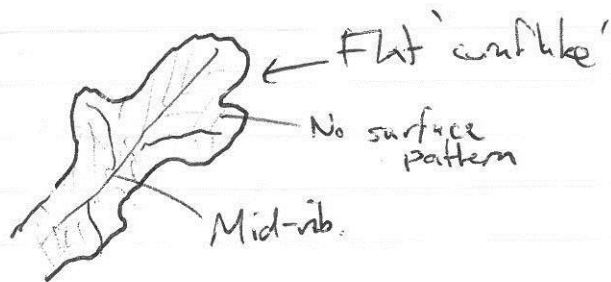
# Bryophytes

# BRYOPHYTES

Thamnobryum alopecurum



Pellia endivifolia



Bedfordshire  
Cambridgeshire  
Northamptonshire

# Bryophytes

# Algae

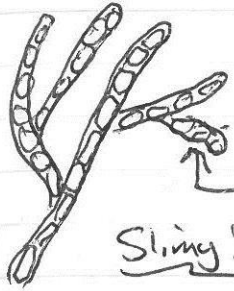


Bedfordshire  
Cambridgeshire  
Northamptonshire

# Algae

ALGAE

Batrachospermum



Frog spawn

Branched

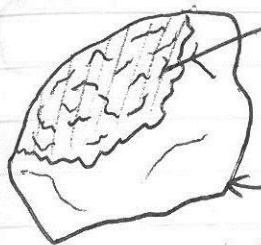
Slingshot!!!



*Batrachospermum* spp.

Hildenbrandia

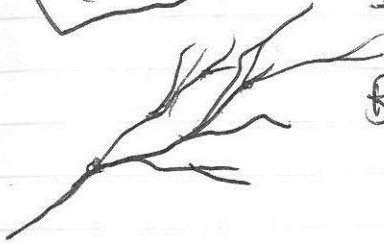
Red crust.



Rock

Lemanea

Black + wiry.



*Hildenbrandia* spp.



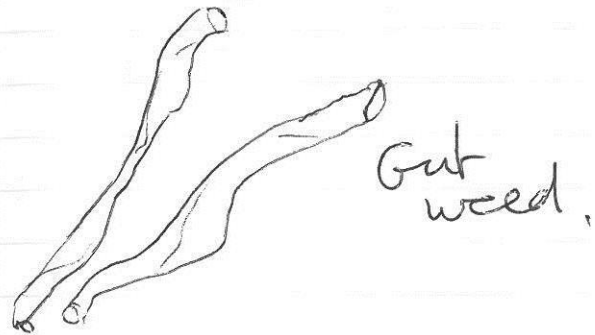
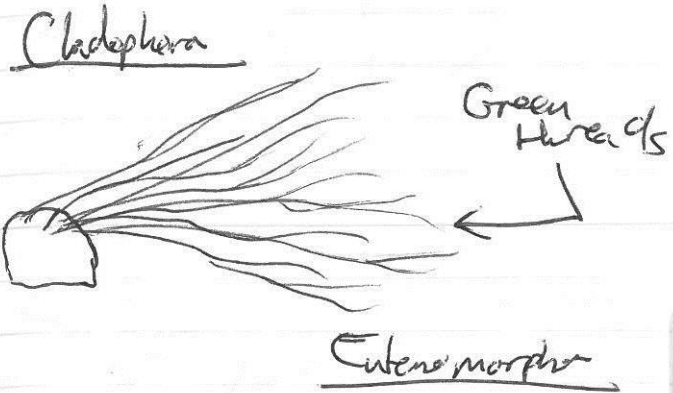
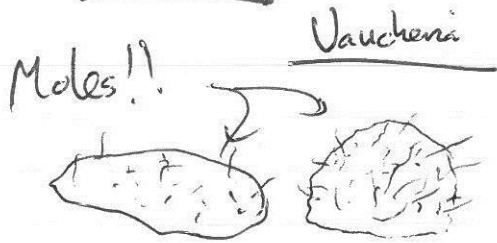
*Lemanea* spp.



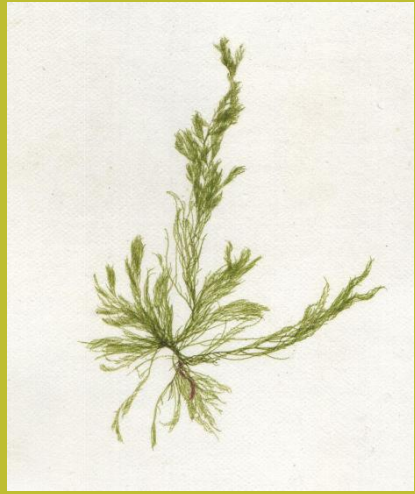
Bedfordshire  
Cambridgeshire  
Northamptonshire

# Algae

# ALGAE



*Vaucheria* spp.



*Cladophora* spp.



*Enteromorpha/Ulva* spp.



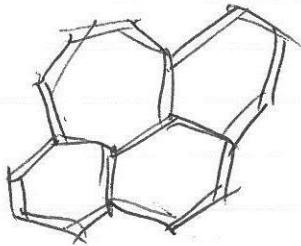
Bedfordshire  
Cambridgeshire  
Northamptonshire

# Algae

(ALGAE)

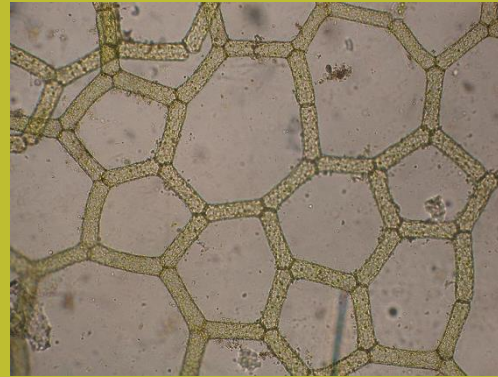
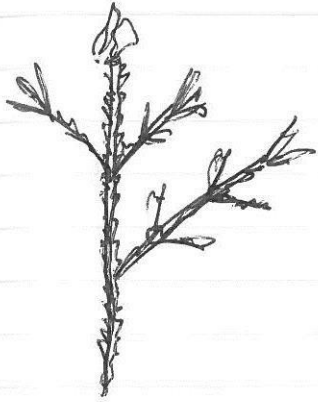
Hydrodictyon

Water  
Net!



Chara

Thistle-like



*Hydrodictyon spp.*



*Chara spp.*



Bedfordshire  
Cambridgeshire  
Northamptonshire

# Algae