



<b>Scientific name</b>	<i>Apium nodiflorum</i> – <i>Ranunculus penicillatus</i> aquatic community
<b>Common name</b>	Fool's-water-cress – Stream Water-crowfoot aquatic community
<b>Community code</b>	FW2D

### Vegetation

This aquatic community has a notable floating-leaf component, with *Ranunculus penicillatus* (subsp. *penicillatus*) a constant species, as is *Fontinalis antipyretica*. The curly leaves of *Potamogeton crispus* are also frequent here, whilst other pondweeds (*Potamogeton natans*, *Potamogeton pectinatus*, *Potamogeton lucens*, *Potamogeton pusillus* and *Potamogeton perfoliatus*) may all occur but are individually rare. The main free-floating plant is *Callitriche stagnalis*, a constant, with *Lemna minor* and *Lemna trisulca* both occasional. Submergents consist of *Zannichellia palustris* and *Myriophyllum spicatum*. There is also a significant marginal/emergent component where *Apium nodiflorum* is constant, frequently accompanied by *Berula erecta*, *Rorippa nasturtium-aquaticum* agg., *Phalaris arundinacea*, *Mentha aquatica* and *Glyceria notata*. *Leptodictyum riparium* and *Rhynchostegium riparioides* provide a bryophyte element to the assemblage.

### Ecology

This vegetation occurs in fairly eutrophic, base-rich rivers and streams.

### Sub-communities

No sub-communities are currently described.

### Similar communities

*Ranunculus penicillatus* and *Fontinalis antipyretica* are also constant features in the FW2C aquatic community. That community, however, has a less pronounced emergent and marginal element with both *Apium nodiflorum* and *Berula erecta* less frequent. Furthermore, *Callitriche stagnalis* is seldom encountered in FW2C. From FW2E, the present community differs by the higher frequency of pondweeds and the lower dominance of *Rorippa nasturtium-aquaticum* agg.

### Records and distribution

#### Number of records (all)

Clearly assigned:	127
Transitional:	9
Total:	136

#### Number of records (mapped)

2001-2015:	5
1986-2000:	0
1971-1985:	0
Pre-1971:	0
Total:	5

#### Number of hectads (most recent records)

2001-2015:	5
1986-2000:	0
1971-1985:	0
Pre-1971:	0
Total:	5

#### Number of hectads (all mapped records)

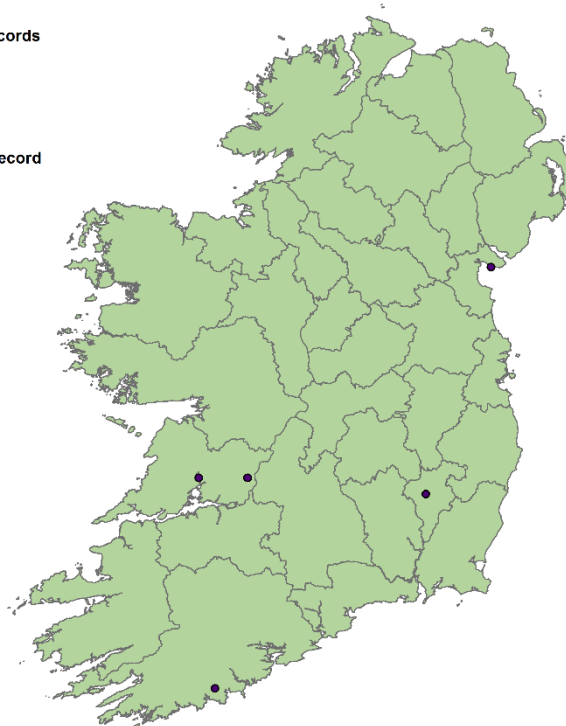
2001-2015:	5
1986-2000:	0
1971-1985:	0
Pre-1971:	0

#### Number of records

- 1-3
- 4-10
- 11-25
- 26+

#### Most recent record

- 2001-2015
- 1986-2000
- 1971-1985
- pre-1971



### Synoptic table (n = 122)

Species	Frequency (from I-V)	Cover min (med) max	Species	Frequency (from I-V)	Cover min (med) max
<i>Apium nodiflorum</i>	V	+-(1)-5	<i>Myriophyllum spicatum</i>	II	+-(1)-3
<i>Ranunculus penicillatus</i>	V	+-(2)-5	<i>Elodea canadensis</i>	I	+-(1)-2
<i>Fontinalis antipyretica</i>	IV	+-(1)-3	<i>Oenanthe crocata</i>	I	+-(+)-1
<i>Callitriche stagnalis</i>	IV	+-(1)-5	<i>Epilobium hirsutum</i>	I	+-(1)-1
<i>Berula erecta</i>	III	+-(1)-2	<i>Sparganium emersum</i>	I	+-(1)-2
<i>Rorippa nasturtium-aquaticum</i> agg.	III	+-(1)-3	<i>Iris pseudacorus</i>	I	+-(1)-1
<i>Phalaris arundinacea</i>	III	+-(1)-2	<i>Potamogeton natans</i>	I	+-(1)-3
<i>Mentha aquatica</i>	III	+-(+)-2	<i>Callitriche hermaphroditica</i>	I	+-(+)-1
<i>Potamogeton crispus</i>	III	+-(1)-2	<i>Potamogeton pectinatus</i>	I	1-(3)-3
<i>Leptodictyum riparium</i>	III	+-(1)-4	<i>Veronica beccabunga</i>	I	+-(+)-2
<i>Rhynchosstegium riparioides</i>	III	+-(1)-3	<i>Hippuris vulgaris</i>	I	+-(1)-2
<i>Glyceria notata</i>	III	+-(1)-3	<i>Agrostis stolonifera</i>	I	+-(1)-1
<i>Myosotis scorpioides</i>	III	+-(+)-2	<i>Rorippa amphibia</i>	I	+-(+)-+
<i>Oenanthe aquatica</i>	II	+-(1)-2	<i>Potamogeton lucens</i>	I	+-(1)-3
<i>Sparganium erectum</i>	II	+-(1)-4	<i>Potamogeton pusillus</i>	I	+-(1)-2
<i>Veronica anagallis-aquatica</i>	II	+-(+)-2	<i>Veronica catenata</i>	I	+-(+)-1
<i>Lemna minor</i>	II	+-(1)-4	<i>Alisma plantago-aquatica</i>	I	+-(+)-+
<i>Schoenoplectus lacustris</i>	II	+-(1)-4	<i>Potamogeton perfoliatus</i>	I	+-(3)-3
<i>Zannichellia palustris</i>	II	+-(1)-3	<i>Ranunculus peltatus</i>	I	+-(1)-4
<i>Lemna trisulca</i>	II	+-(1)-3	<i>Glyceria maxima</i>	I	1-(1)-1

#### Affinities

GHI: FW1 Eroding/upland rivers / FW2 Lowland/depositing rivers

ZM: POT-02A Batrachion fluitantis Neuhäusl 1959

EUNIS: C2.27 Mesotrophic vegetation of fast-flowing rivers / C2.33 Mesotrophic vegetation of slow-flowing rivers

NVC: A8 *Nuphar lutea* community (33.0%) (but see also A17 *Ranunculus peltatus* ssp. *pseudofluitans* community)

Annex I:3260 Floating river vegetation

#### Proxy environmental data

Light: 6.8      Reaction: 7.0      Wetness: 10.8      Fertility: 6.0      Salinity: 0.3

#### Conservation value

Almost all examples of this community with a relative abundance of crowfoots (*Ranunculus* spp. subgenus *Batrachion*) correspond with the EU HD Annex I habitat 3260 Floating river vegetation. *Elodea canadensis* is a non-native submergent that is not considered a major ecological threat and has already colonised much of its suitable niche in Ireland.

#### Management

This community has no specific management. Eutrophication from discharges and agriculture run-off is probably the major threat. Other impacts may come from river engineering and trampling from livestock with access to the bankside.

#### Key references

Caffrey, J. (1990) Classification and dynamics of aquatic macrophytes in some Irish rivers. (Ph.D. thesis). University College Dublin, Ireland.

Weekes, L., Kački, Z., FitzPatrick, Ú., Kelly, F., Matson, R., Kelly-Quinn, M. (2018) An Irish national vegetation classification system for aquatic river macrophytes. *Applied Vegetation Science* 21, 322–340.

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