

subsection_species_abundance

Loading required package: ggpp

Registered S3 methods overwritten by 'ggpp':

```
method          from  
heightDetails.titleGrob ggplot2  
widthDetails.titleGrob  ggplot2
```

Attaching package: 'ggpp'

The following object is masked from 'package:ggplot2':

```
annotate
```

You can add options to executable code like this

```
#| label: plot-fractions  
# Make sure 'species' column exists  
stopifnot("species" %in% names(nero_subsection_species))  
  
species_list <- unique(nero_subsection_species$species)  
  
for (sp in species_list) {  
  data_sp <- dplyr::filter(nero_subsection_species, species == sp)  
  if (nrow(data_sp) < 2) next  
  
  try({  
    p <- ggplot(data_sp, aes(x = year, y = fraction)) +  
      geom_point() +  
      geom_smooth(method = "lm") +  
      ggpmisc::stat_poly_eq(  
        aes(label = paste0("y = ", round(coef(lm(data_sp$y ~ x), 2), 2),  
                             "x + ", round(coef(lm(data_sp$y ~ 1), 2), 2),  
                             " = R^2: ", round(summary(lm(data_sp$y ~ x))$adj.r.squared, 2), 2)  
        )  
      )  
  })  
}
```

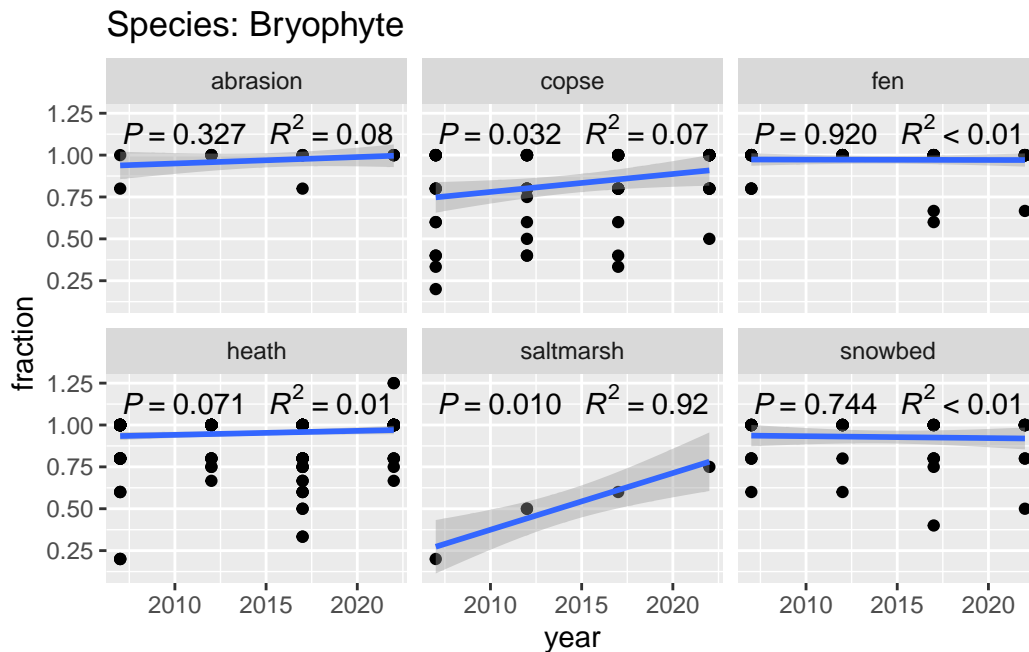
```

    aes(label = paste(..p.value.label.., ..rr.label.., ..eq.label.., sep = "~~~")),
    formula = y ~ x,
    parse = TRUE
  ) +
  facet_wrap(~veg_type) +
  ggtitle(paste("Species:", sp))
print(p)
})
}

```

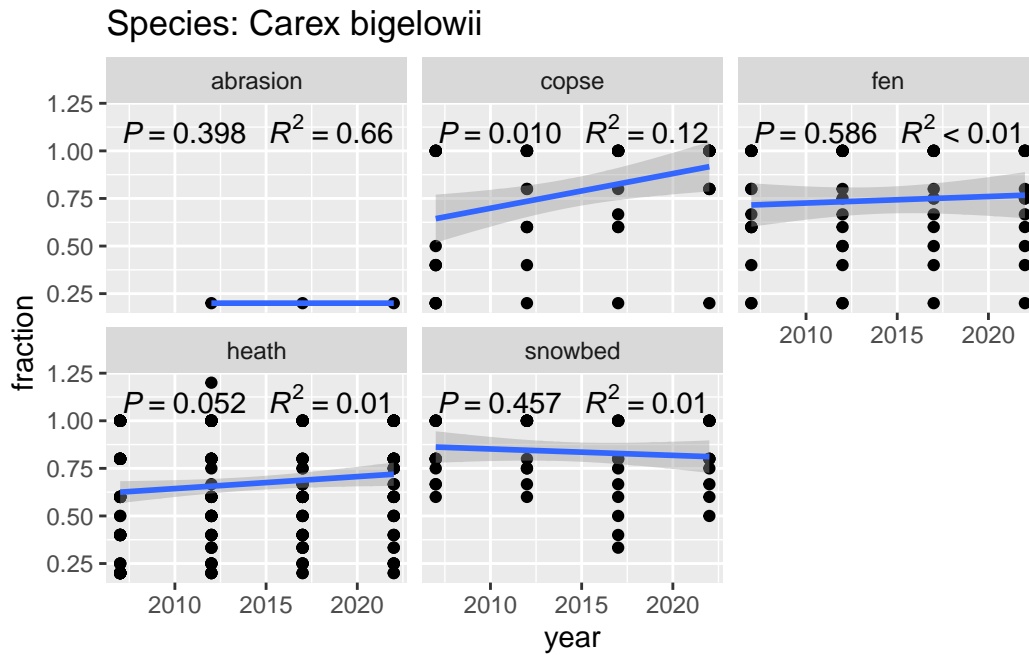
Warning: The dot-dot notation (`..p.value.label..`) was deprecated in ggplot2 3.4.0.
 i Please use `after_stat(p.value.label)` instead.

`geom_smooth()` using formula = 'y ~ x'



`geom_smooth()` using formula = 'y ~ x'

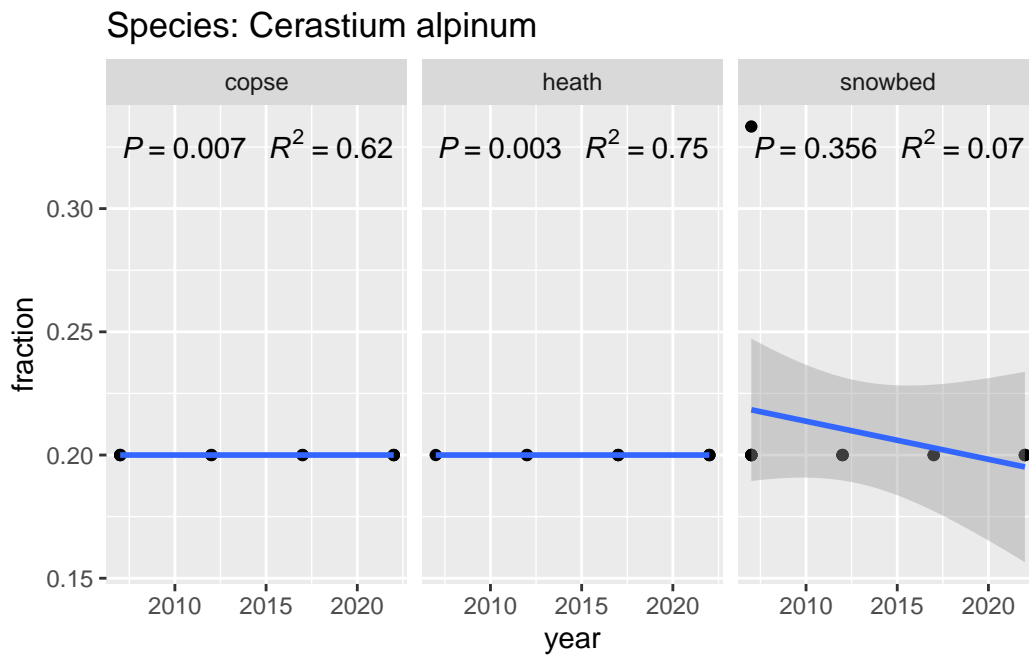
Warning in summary.lm(fm): essentially perfect fit: summary may be unreliable



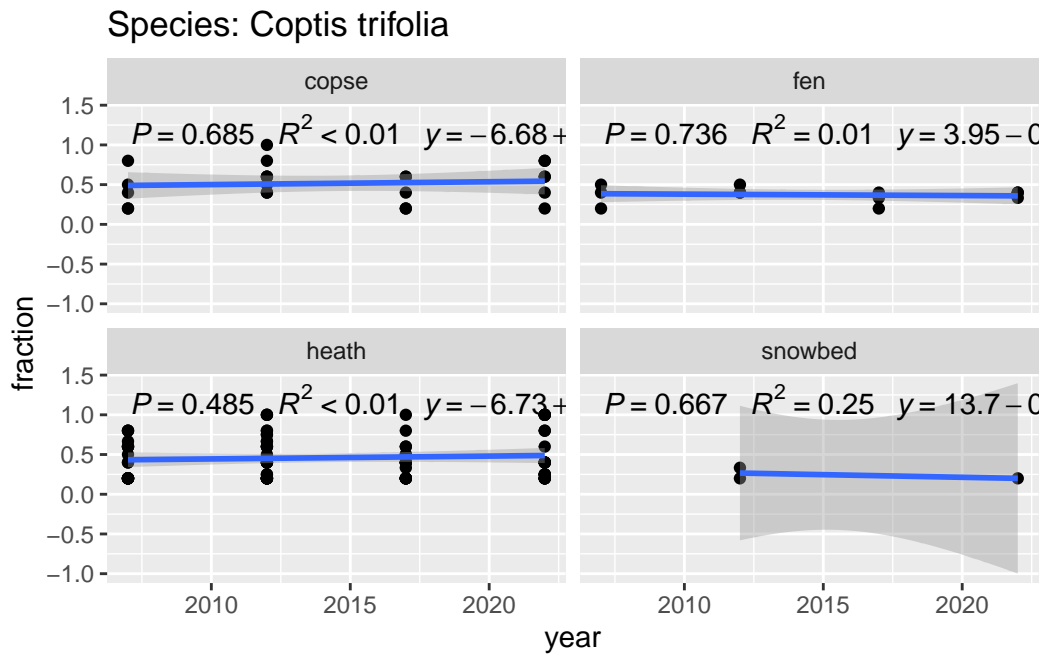
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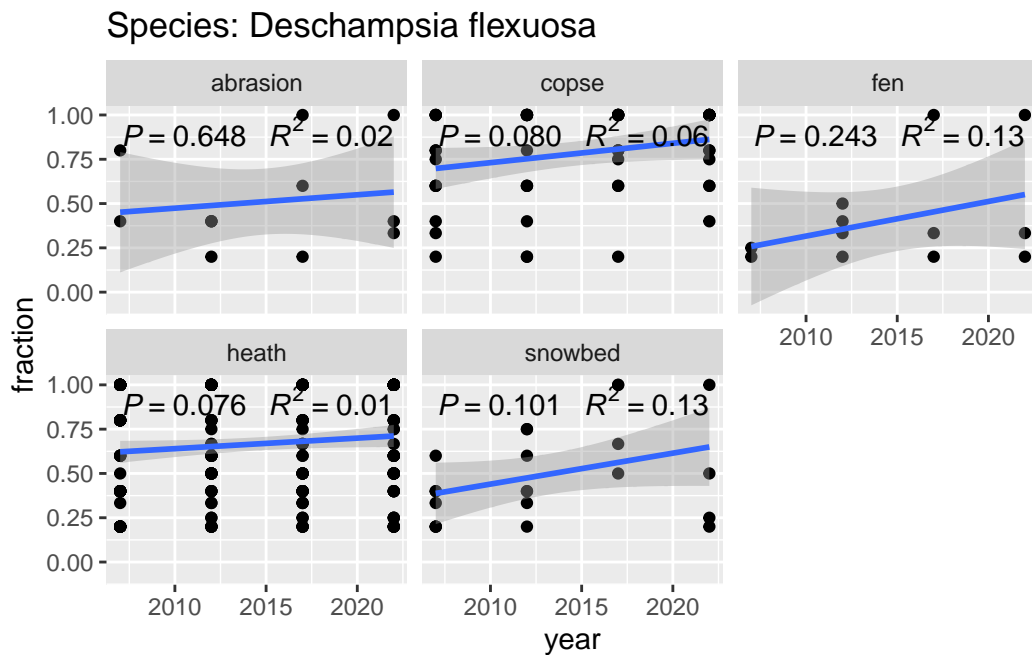
Warning in `summary.lm(fm)`: essentially perfect fit: summary may be unreliable



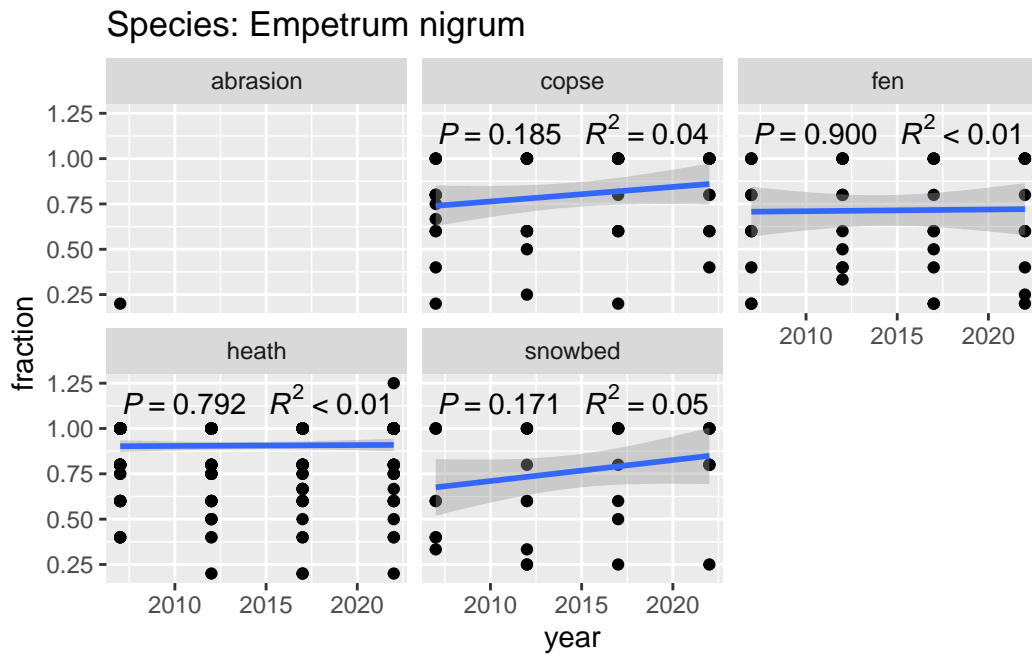
`geom_smooth()` using formula = 'y ~ x'



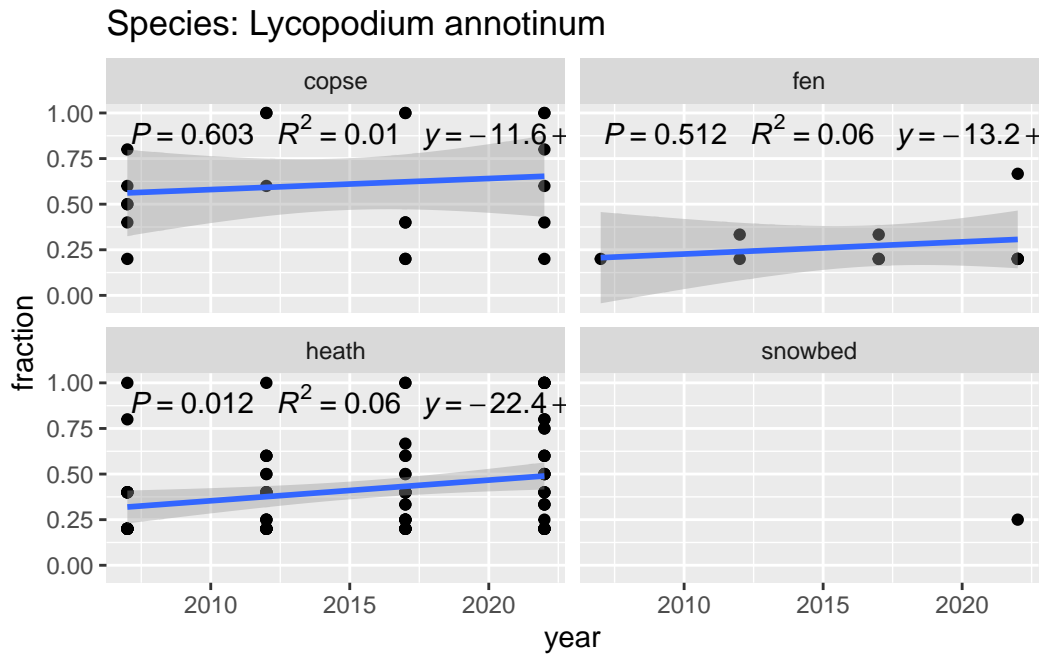
`geom_smooth()` using formula = 'y ~ x'



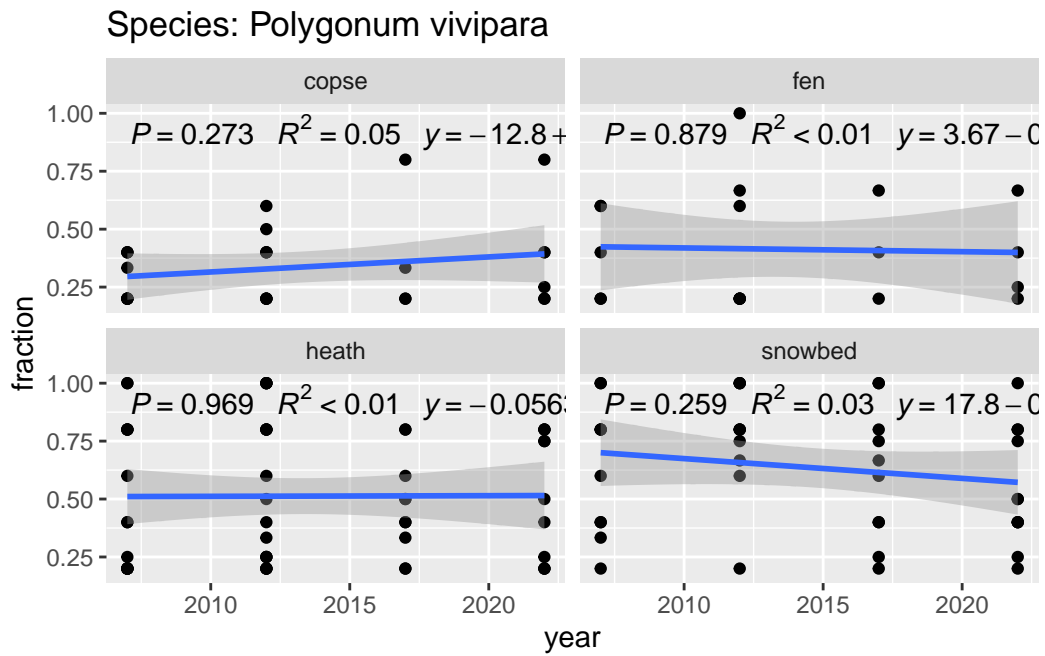
`geom_smooth()` using formula = 'y ~ x'



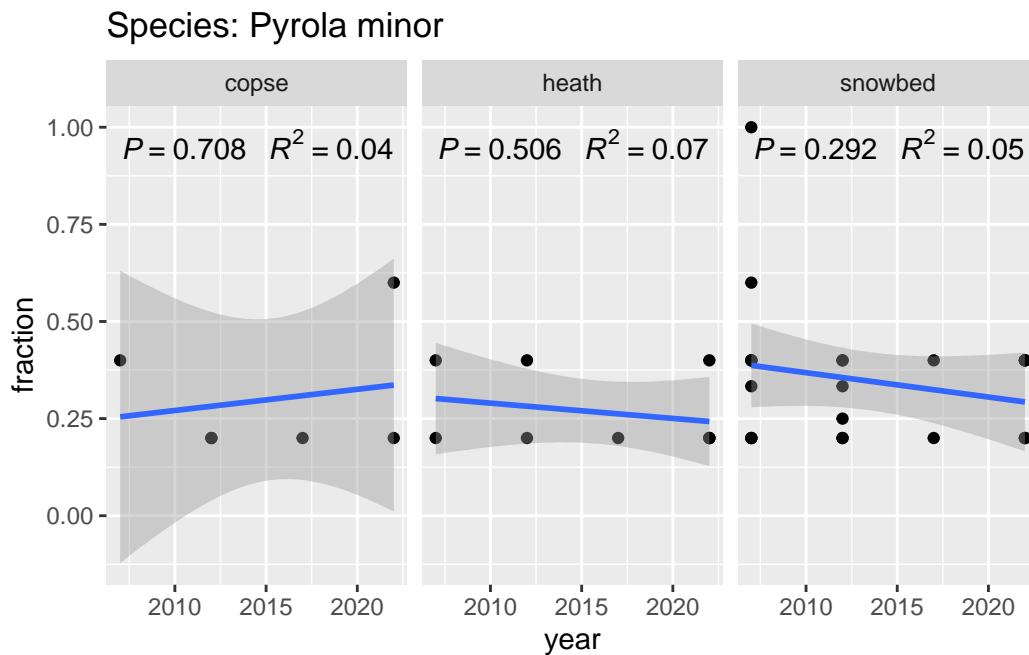
`geom_smooth()` using formula = 'y ~ x'



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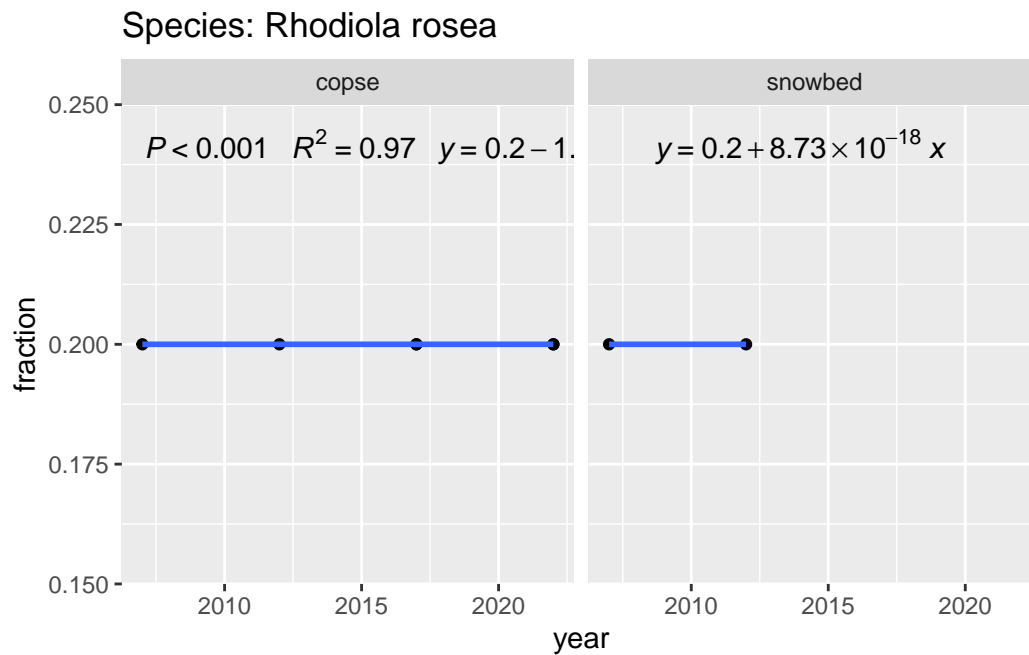


```
`geom_smooth()` using formula = 'y ~ x'
```

Warning in qt((1 - level)/2, df): NaNs produced

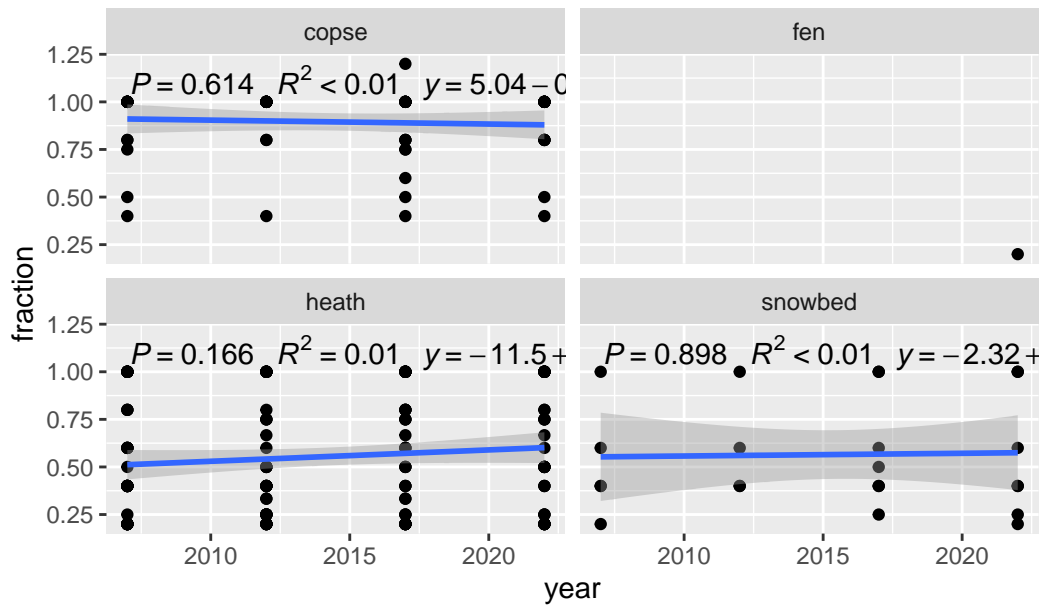
Warning in qt((1 - level)/2, df): essentially perfect fit: summary may be unreliable

Warning in max(ids, na.rm = TRUE): no non-missing arguments to max; returning -Inf



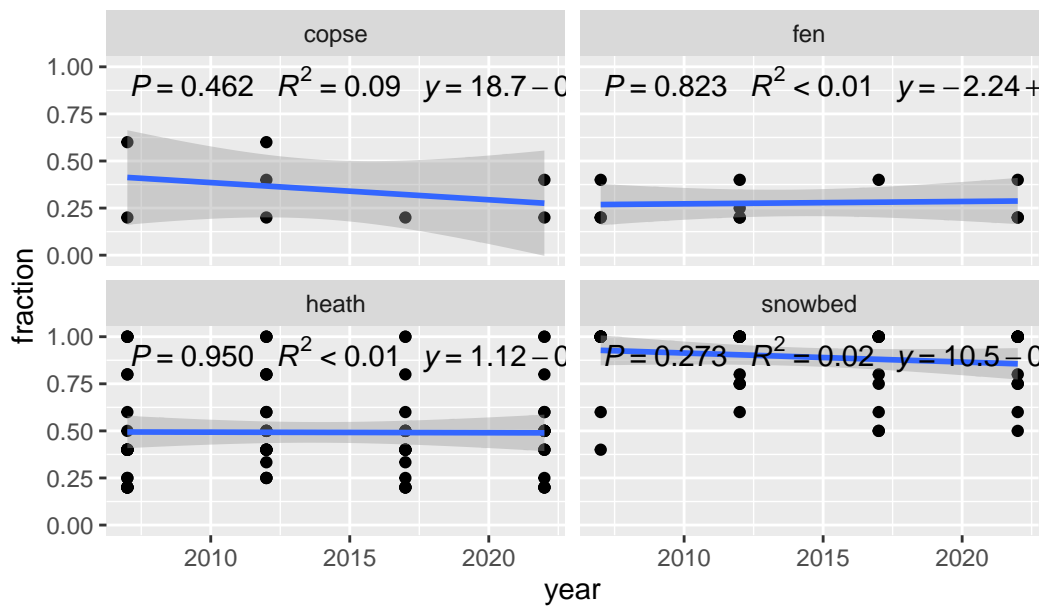
```
`geom_smooth()` using formula = 'y ~ x'
```

Species: *Salix glauca*



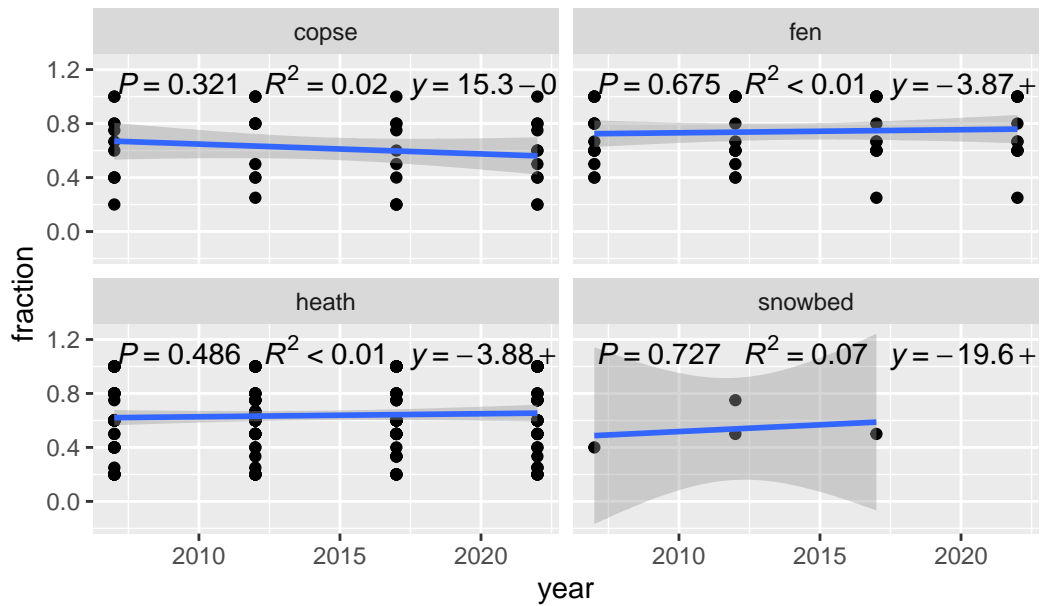
``geom_smooth()`` using formula = 'y ~ x'

Species: *Salix herbacea*



``geom_smooth()`` using formula = 'y ~ x'

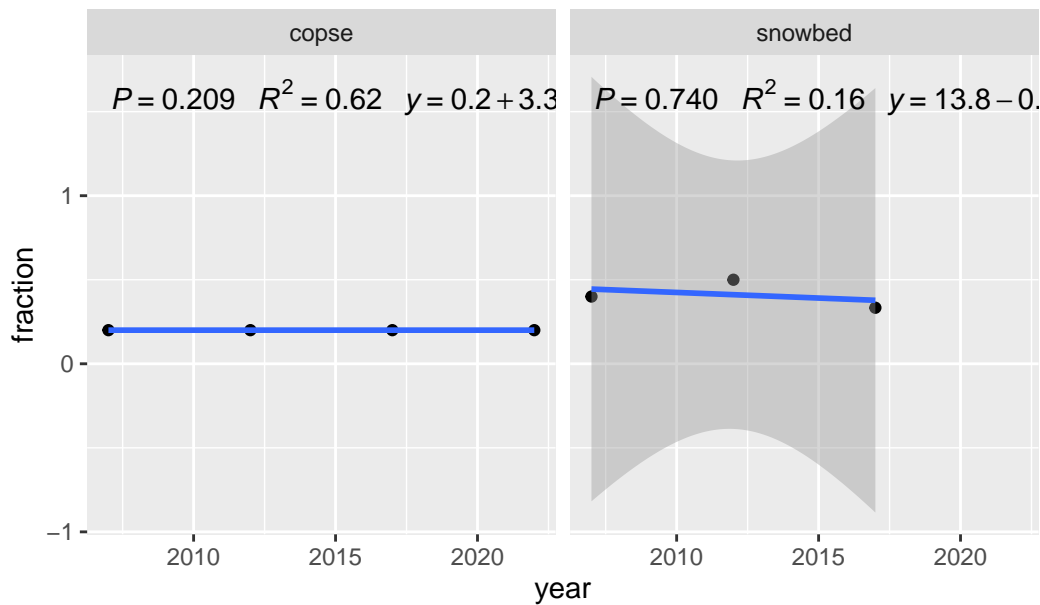
Species: *Vaccinium uliginosum*



``geom_smooth()`` using formula = 'y ~ x'

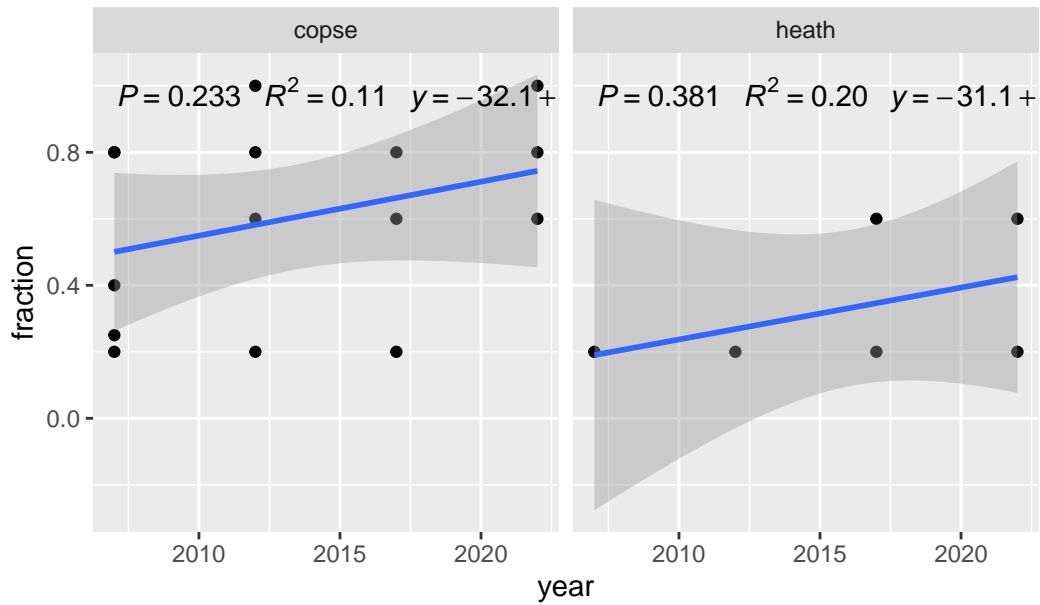
Warning in `summary.lm(fm)`: essentially perfect fit: summary may be unreliable

Species: *Gnaphalium norvegicum*



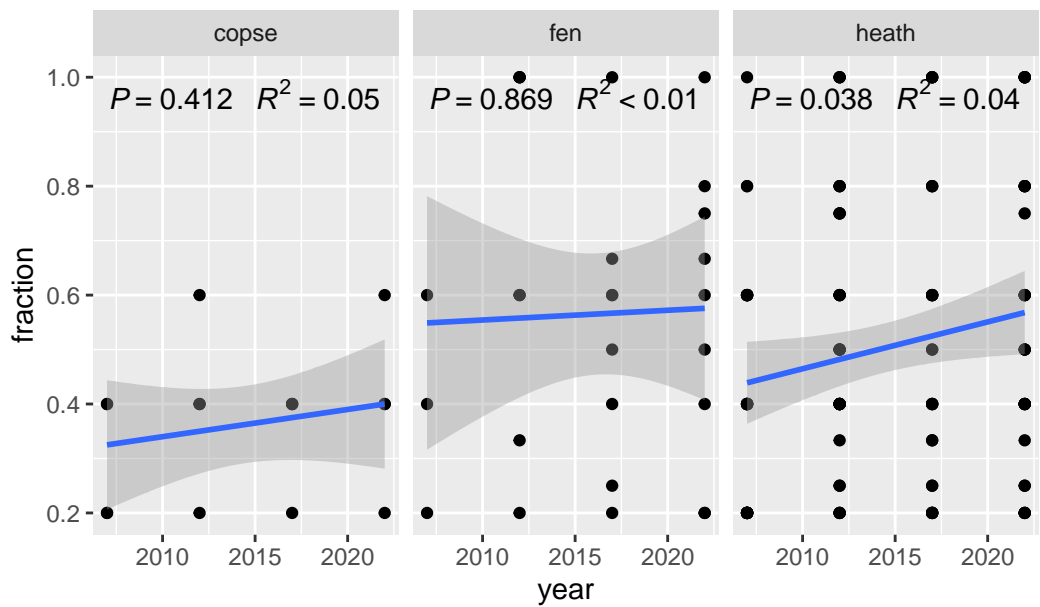
``geom_smooth()`` using formula = 'y ~ x'

Species: *Gymnocarpium dryopteris*



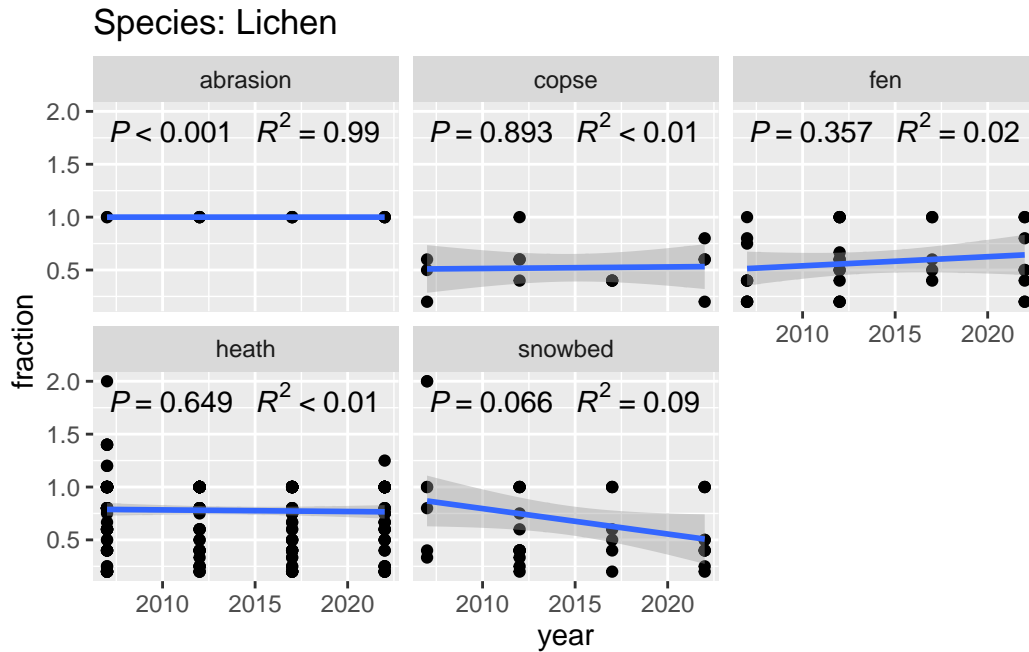
``geom_smooth()`` using formula = 'y ~ x'

Species: *Ledum groenlandicum*



```
`geom_smooth()` using formula = 'y ~ x'
```

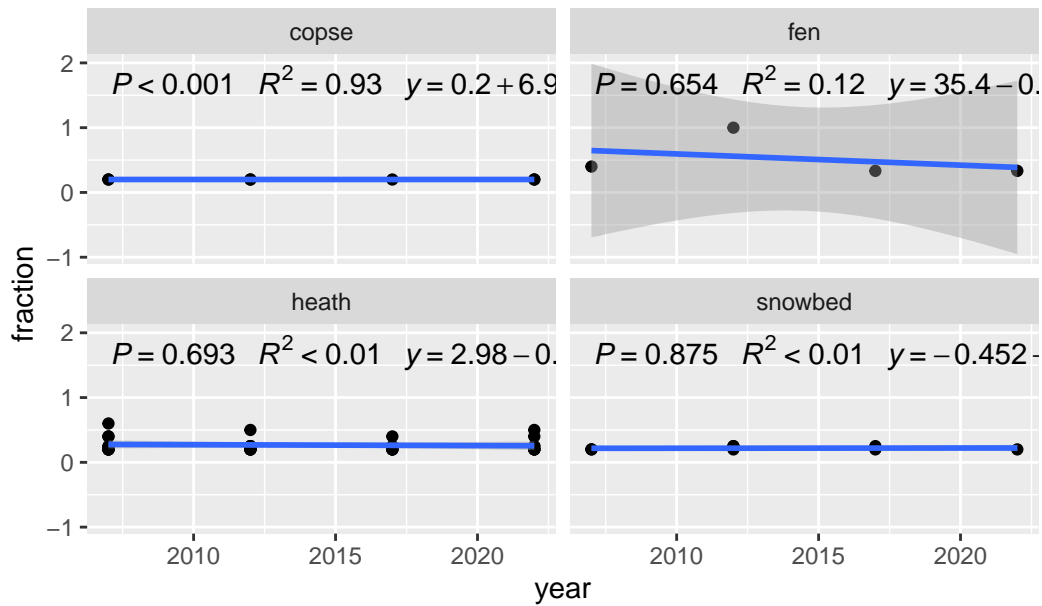
Warning in summary.lm(fm): essentially perfect fit: summary may be unreliable



```
`geom_smooth()` using formula = 'y ~ x'
```

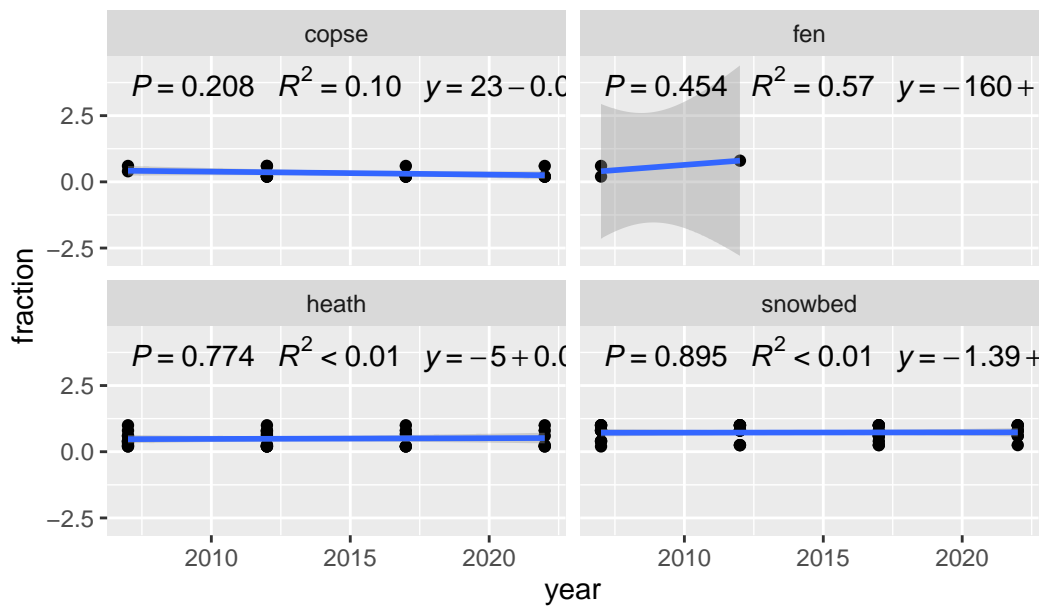
Warning in summary.lm(fm): essentially perfect fit: summary may be unreliable

Species: *Phyllodoce coerulea*



``geom_smooth()`` using formula = 'y ~ x'

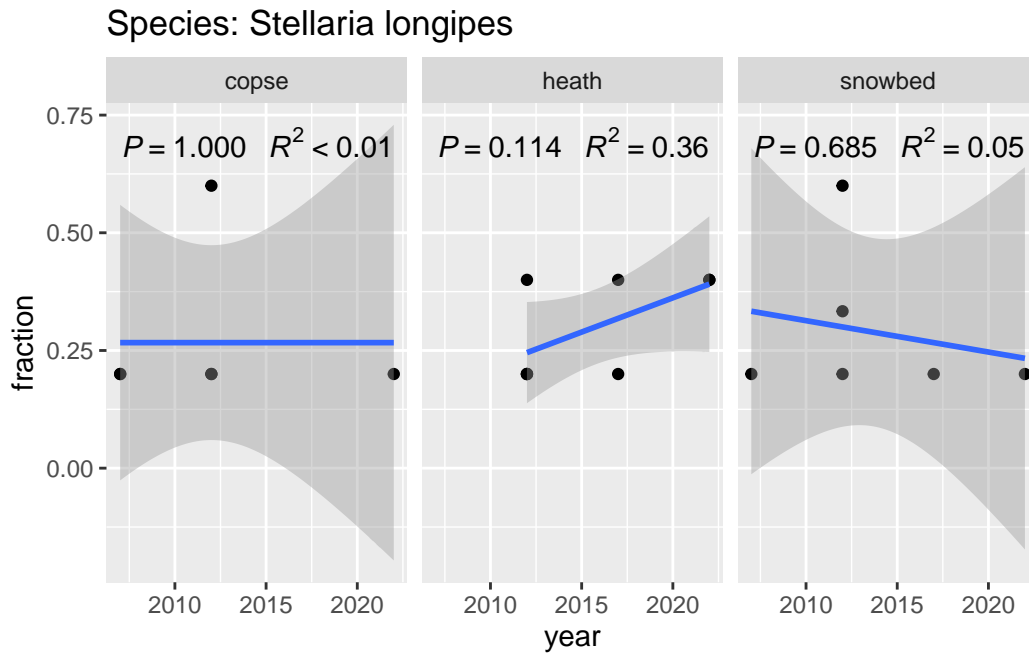
Species: *Poa pratensis*



``geom_smooth()`` using formula = 'y ~ x'

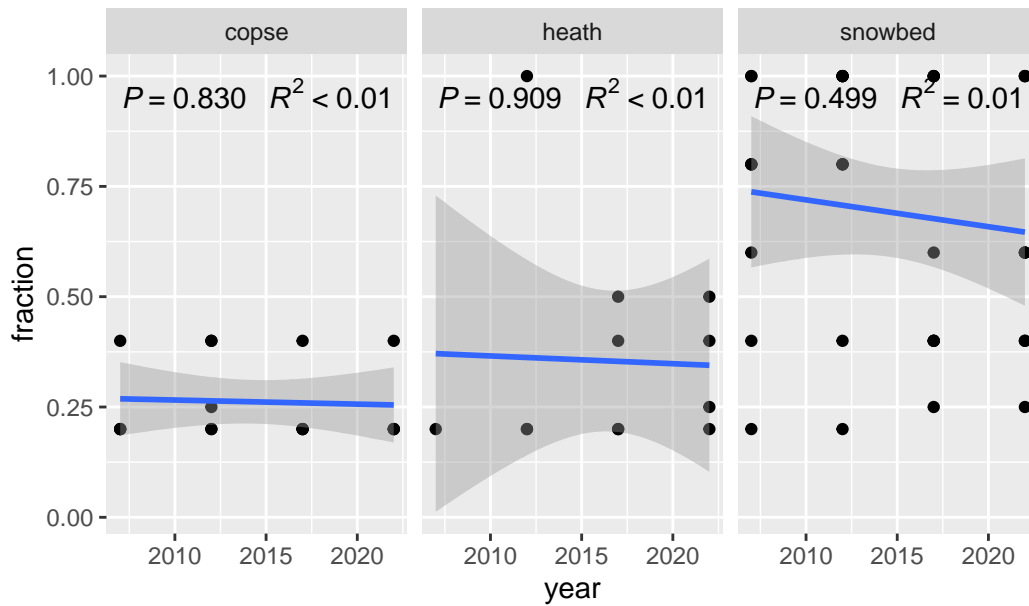
Warning in ci_f_ncp(stat, df1 = df1, df2 = df2, probs = probs): Upper limit outside search range. Set to the maximum of the parameter range.

Warning in compute_group(...): CI computation error: Error in check_output(cint, probs = probs)



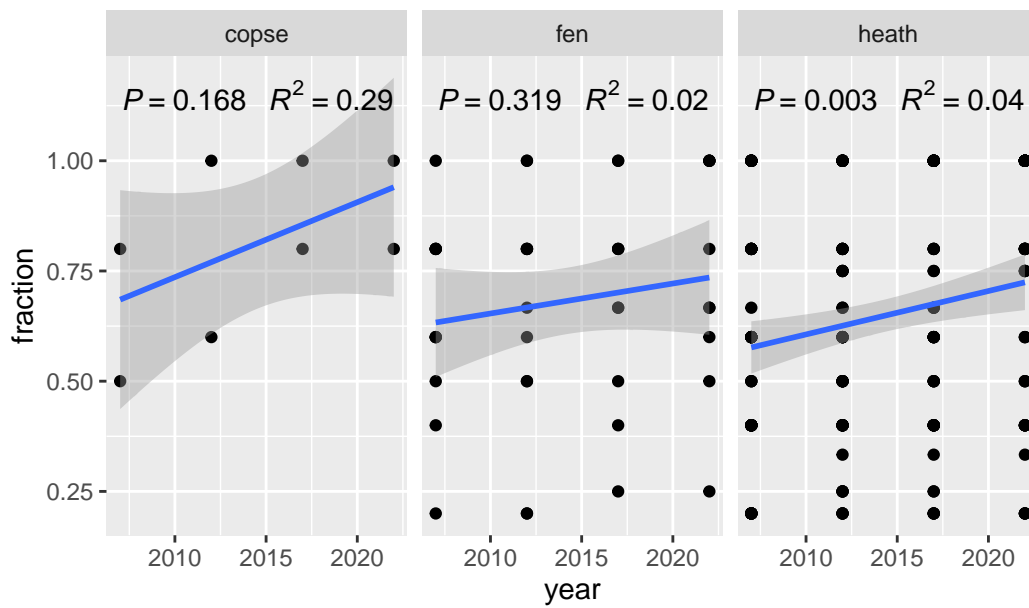
`geom_smooth()` using formula = 'y ~ x'

Species: Taraxacum sp



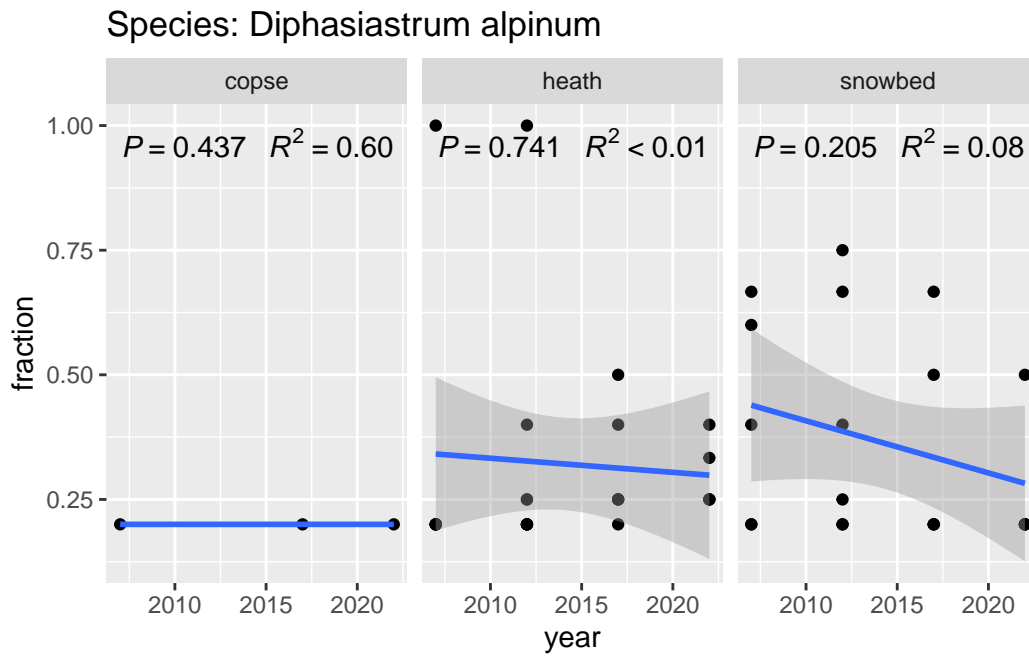
``geom_smooth()`` using formula = 'y ~ x'

Species: Betula nana

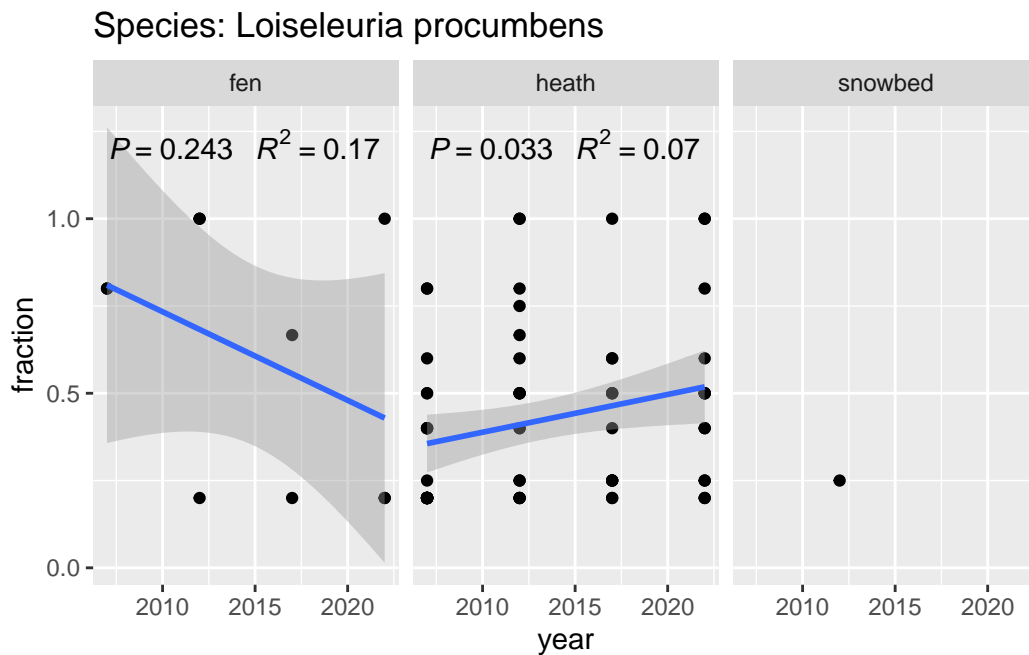


``geom_smooth()`` using formula = 'y ~ x'

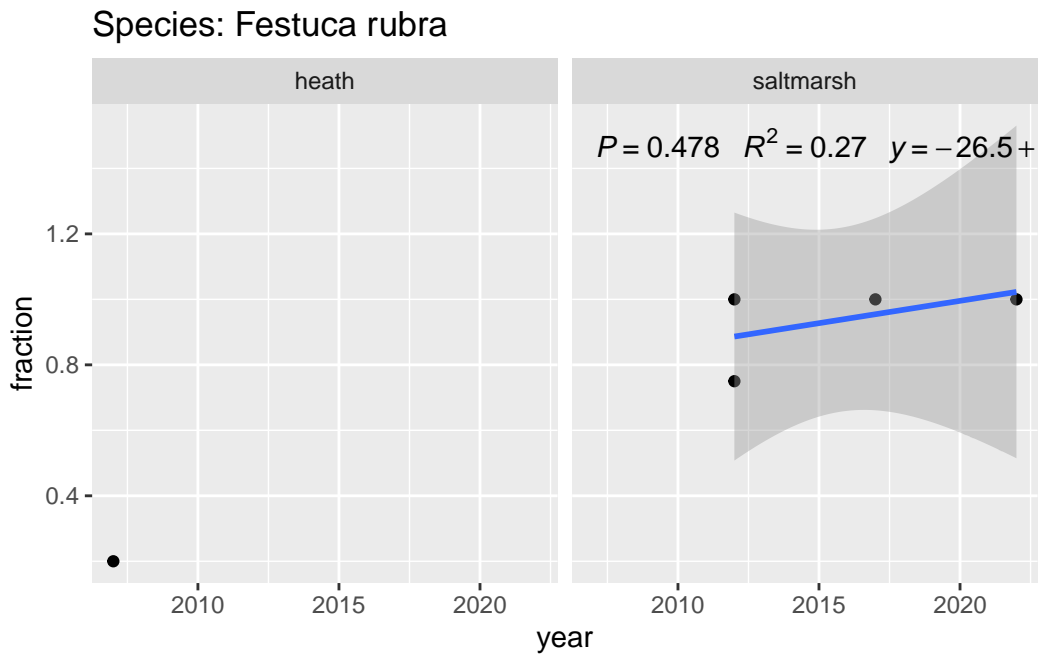
Warning in summary.lm(fm): essentially perfect fit: summary may be unreliable



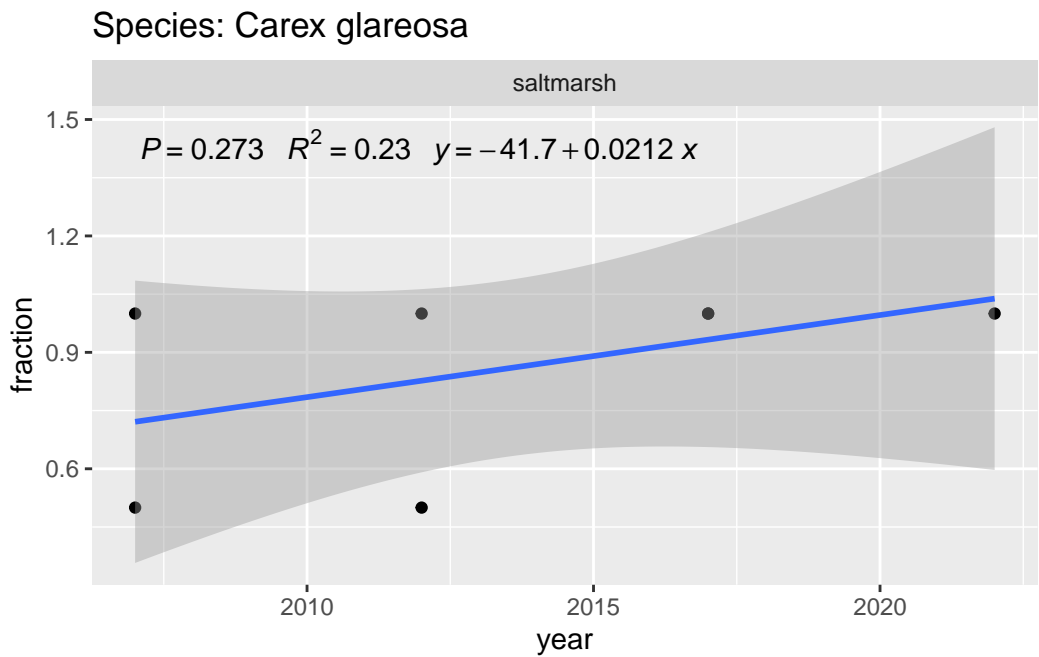
``geom_smooth()`` using formula = 'y ~ x'



```
`geom_smooth()` using formula = 'y ~ x'
```

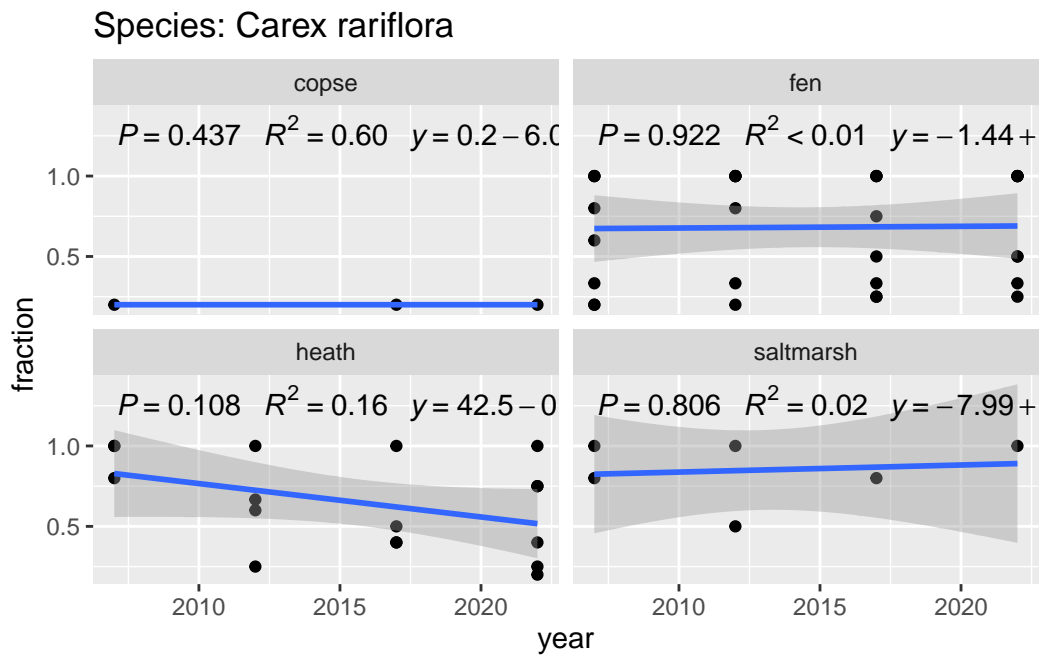


```
`geom_smooth()` using formula = 'y ~ x'
```



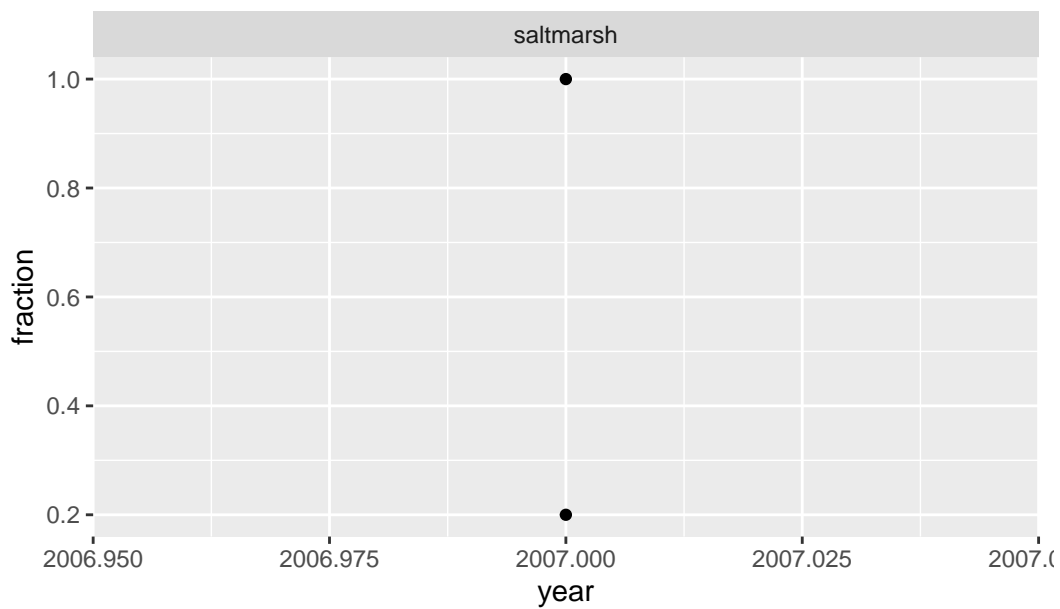

```
`geom_smooth()` using formula = 'y ~ x'
```

Warning in summary.lm(fm): essentially perfect fit: summary may be unreliable



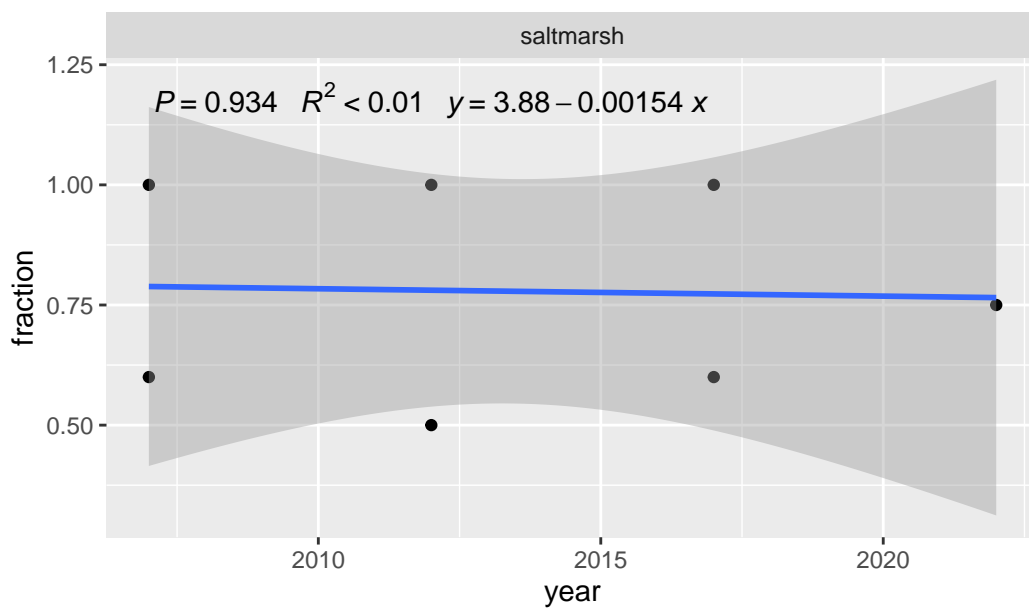
```
`geom_smooth()` using formula = 'y ~ x'
```

Species: *Carex salina*

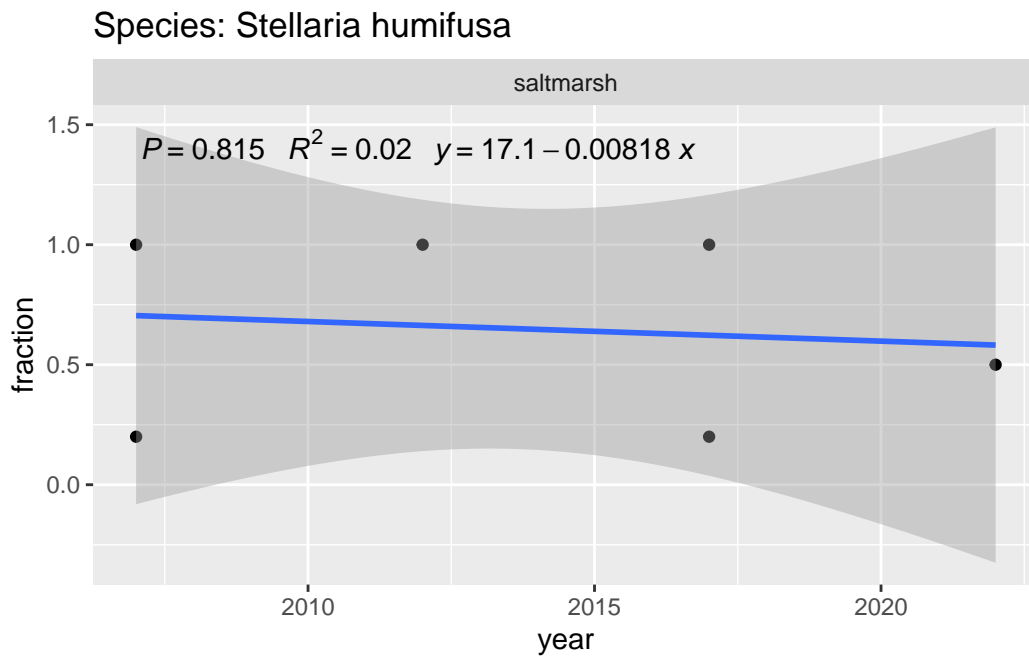


``geom_smooth()`` using formula = 'y ~ x'

Species: *Potentilla egedii*



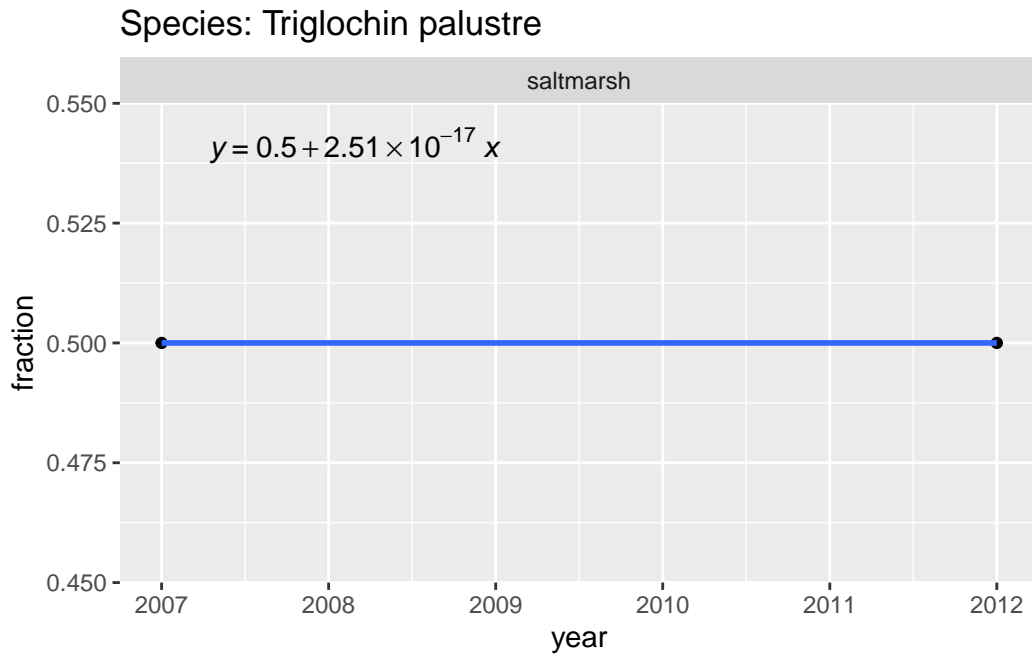
``geom_smooth()`` using formula = 'y ~ x'



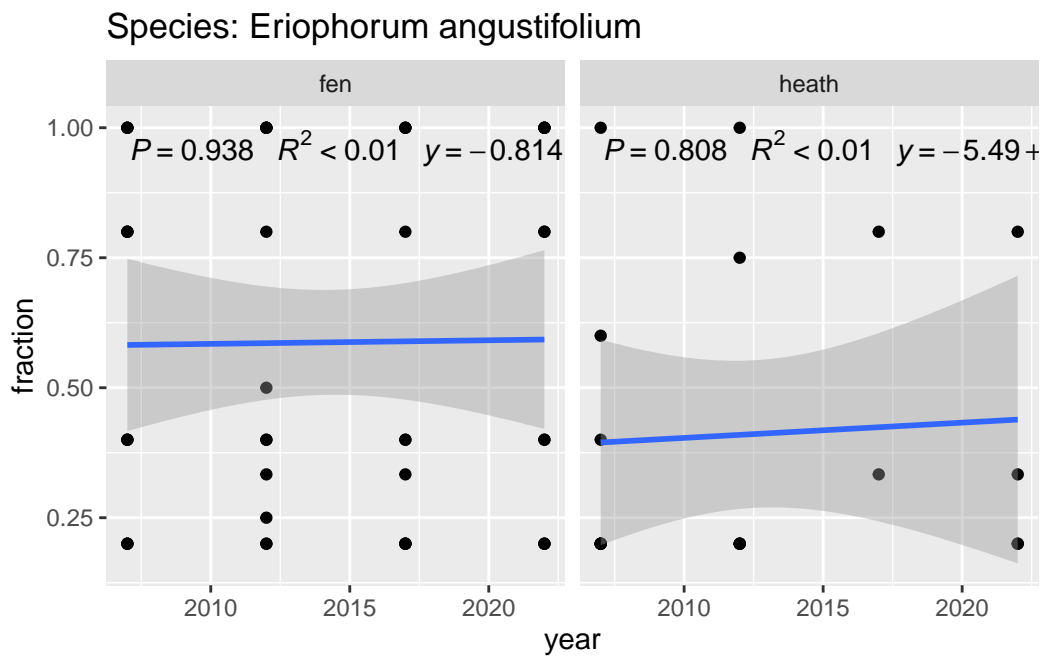
```
`geom_smooth()` using formula = 'y ~ x'
```

Warning in qt((1 - level)/2, df): NaNs produced

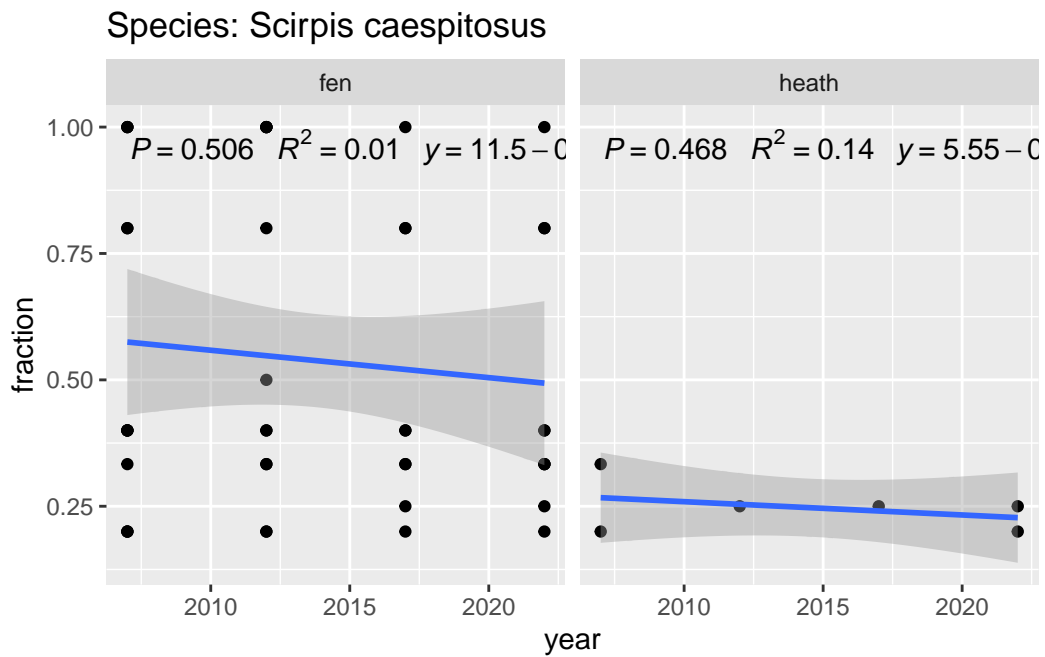
Warning in max(ids, na.rm = TRUE): no non-missing arguments to max; returning -Inf



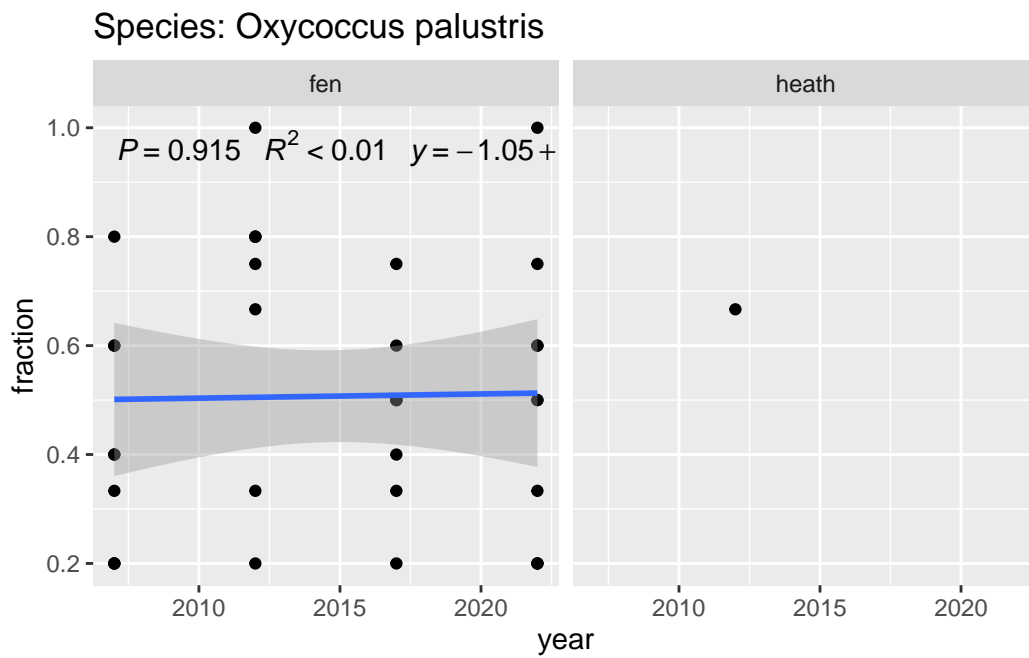
``geom_smooth()`` using formula = 'y ~ x'



``geom_smooth()`` using formula = 'y ~ x'

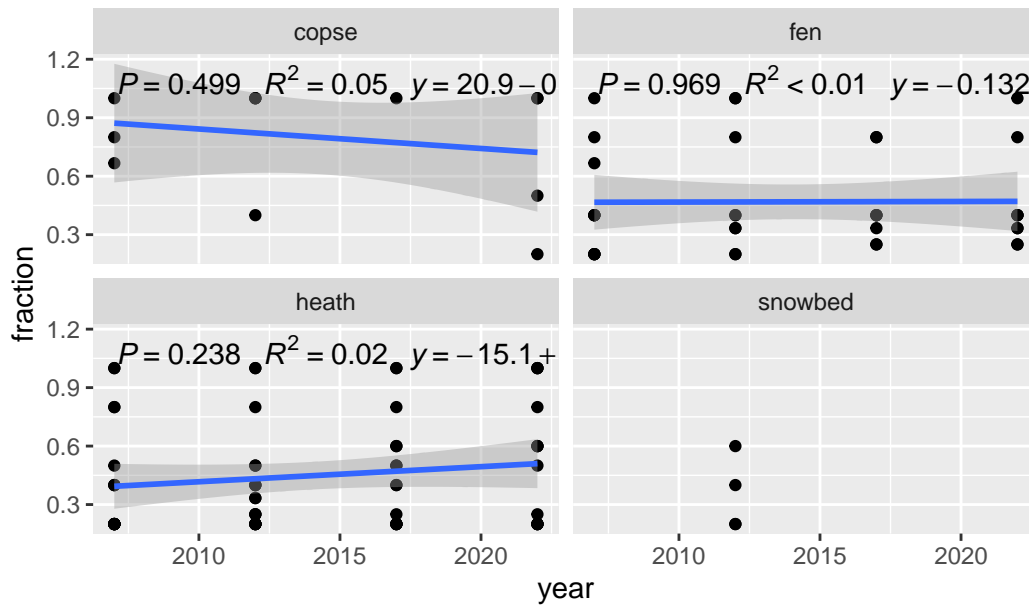


``geom_smooth()`` using formula = 'y ~ x'



``geom_smooth()`` using formula = 'y ~ x'

Species: Salix arctophila

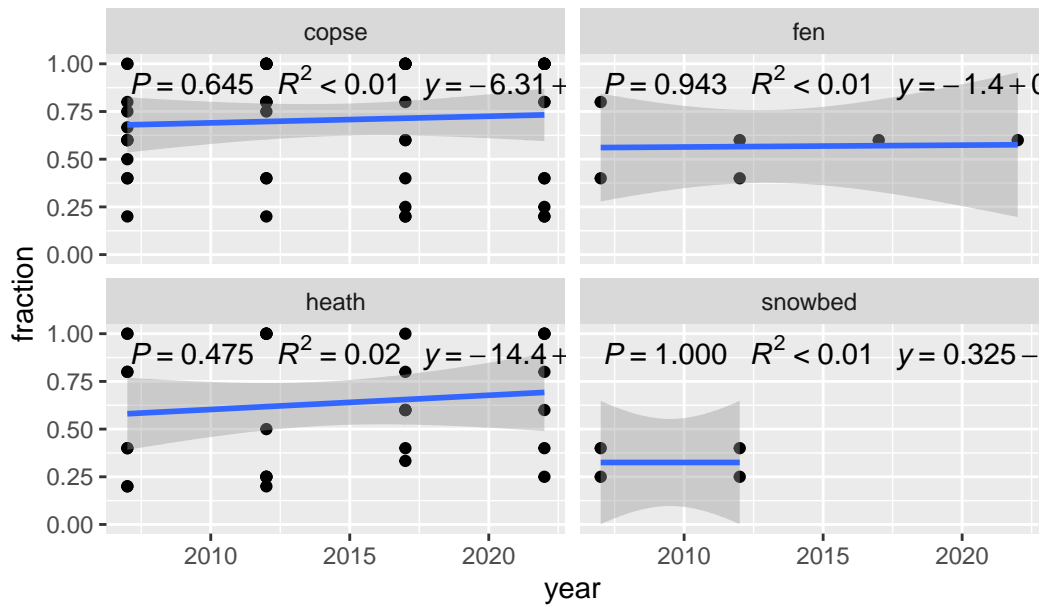


``geom_smooth()`` using formula = 'y ~ x'

Warning in `ci_f_ncp(stat, df1 = df1, df2 = df2, probs = probs)`: Upper limit outside search range. Set to the maximum of the parameter range.

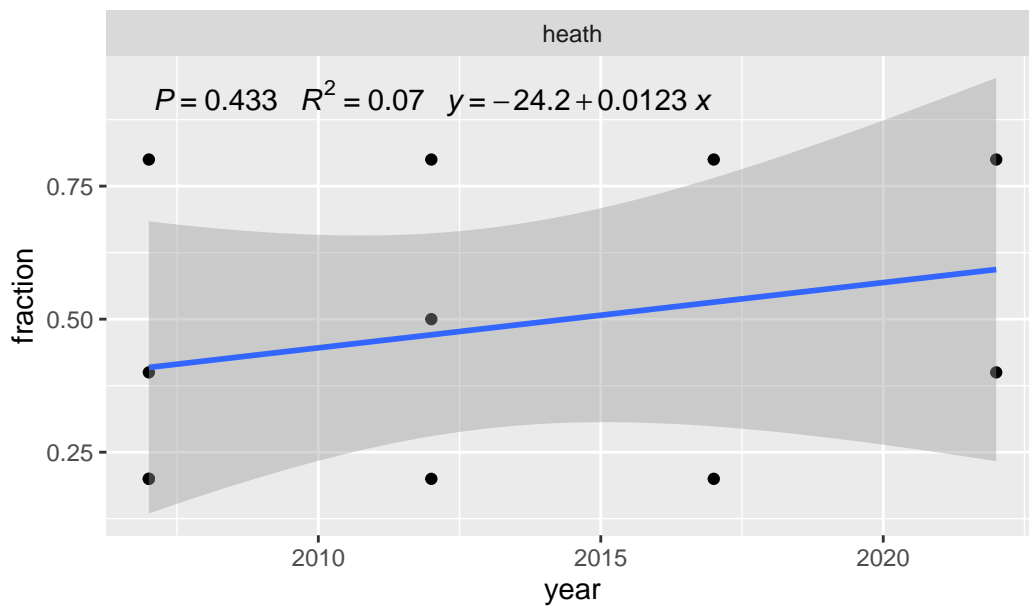
Warning in `compute_group(...)`: CI computation error: Error in `check_output(cint, probs = probs)`

Species: *Calamagrostis langsdorfii*



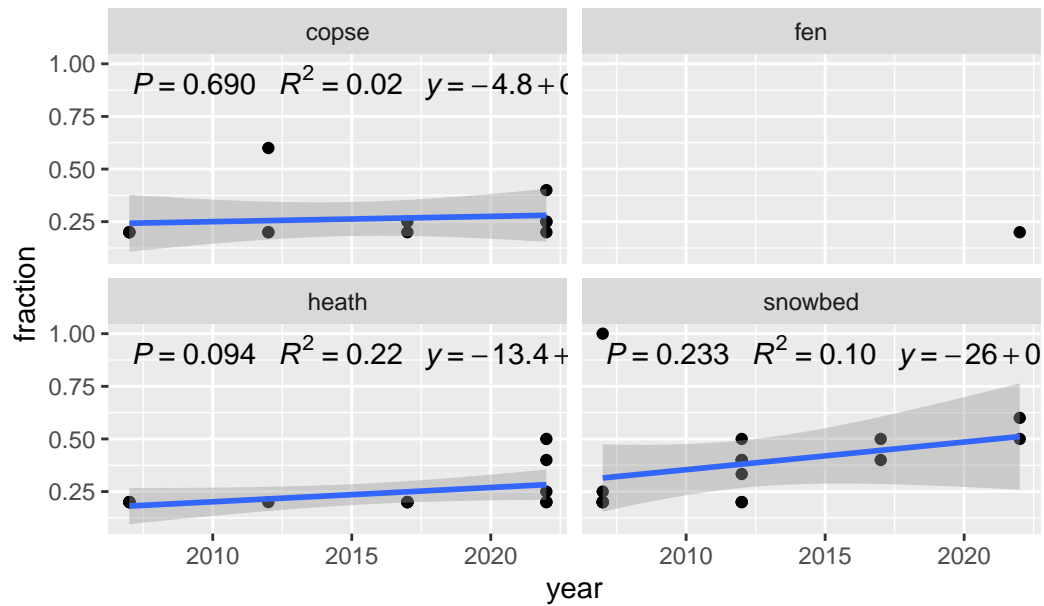
``geom_smooth()`` using formula = 'y ~ x'

Species: *Cornus suecica*



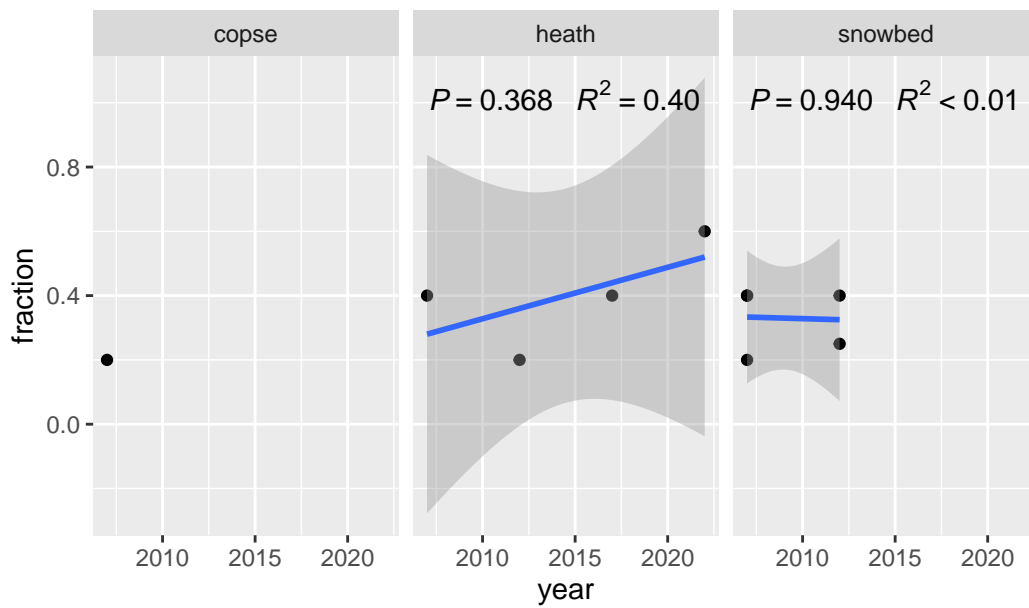
``geom_smooth()`` using formula = 'y ~ x'

Species: *Luzula parviflora*



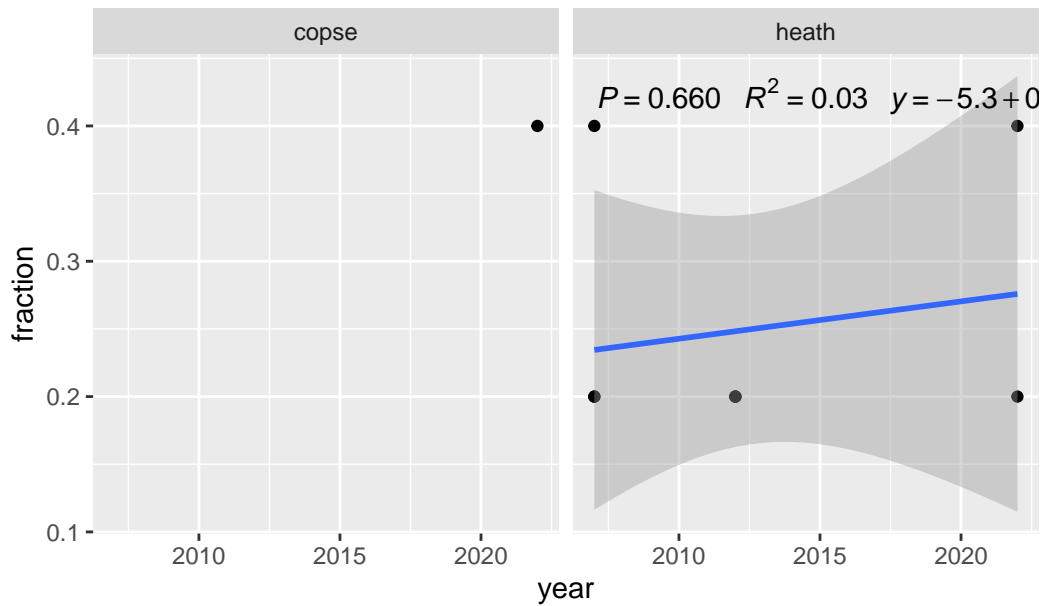
``geom_smooth()`` using formula = 'y ~ x'

Species: *Phleum commutatum*



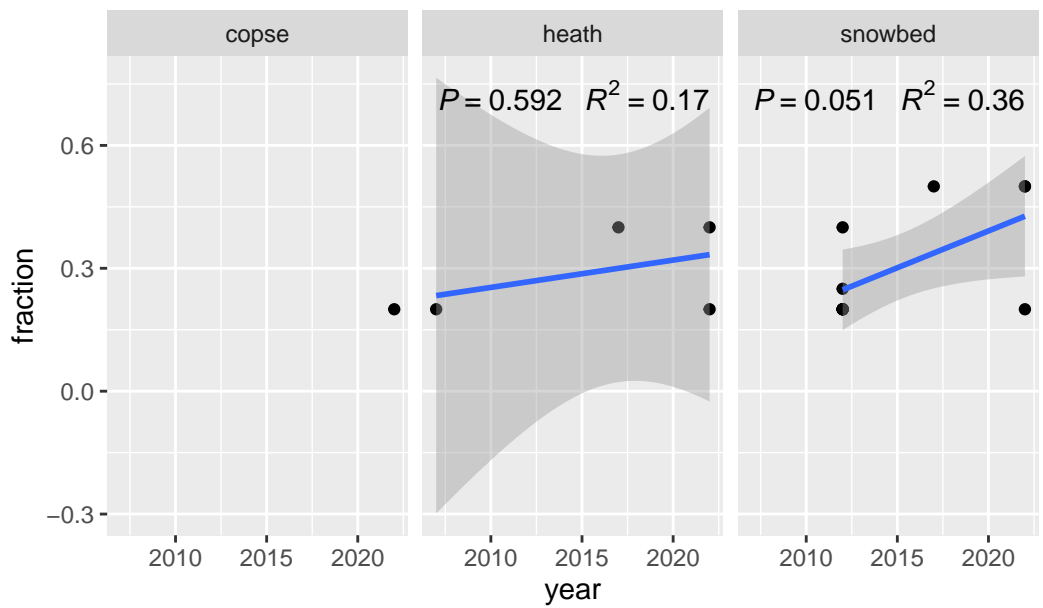
``geom_smooth()`` using formula = 'y ~ x'

Species: *Stellaria calycantha*



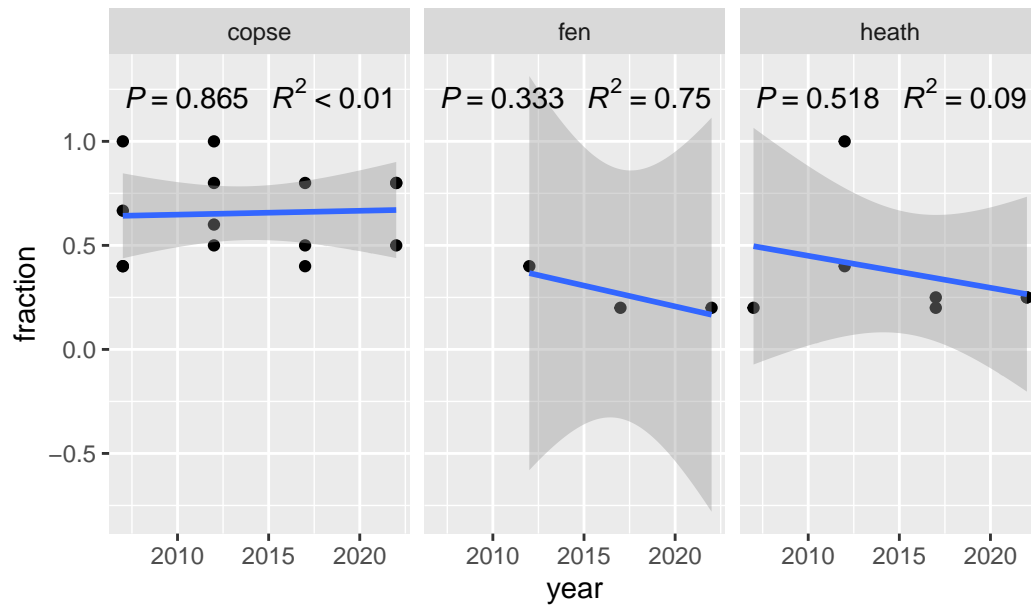
``geom_smooth()`` using formula = 'y ~ x'

Species: *Veronica worms kjoldii*



``geom_smooth()`` using formula = 'y ~ x'

Species: Equisetum silvaticum



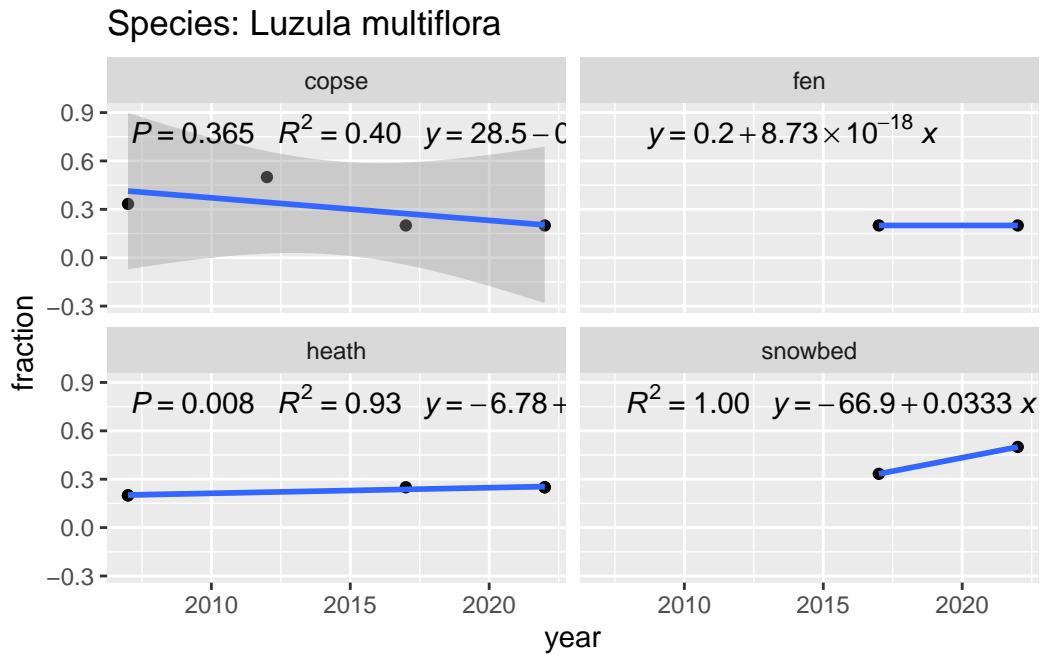
``geom_smooth()`` using formula = 'y ~ x'

Warning in qt((1 - level)/2, df): NaNs produced

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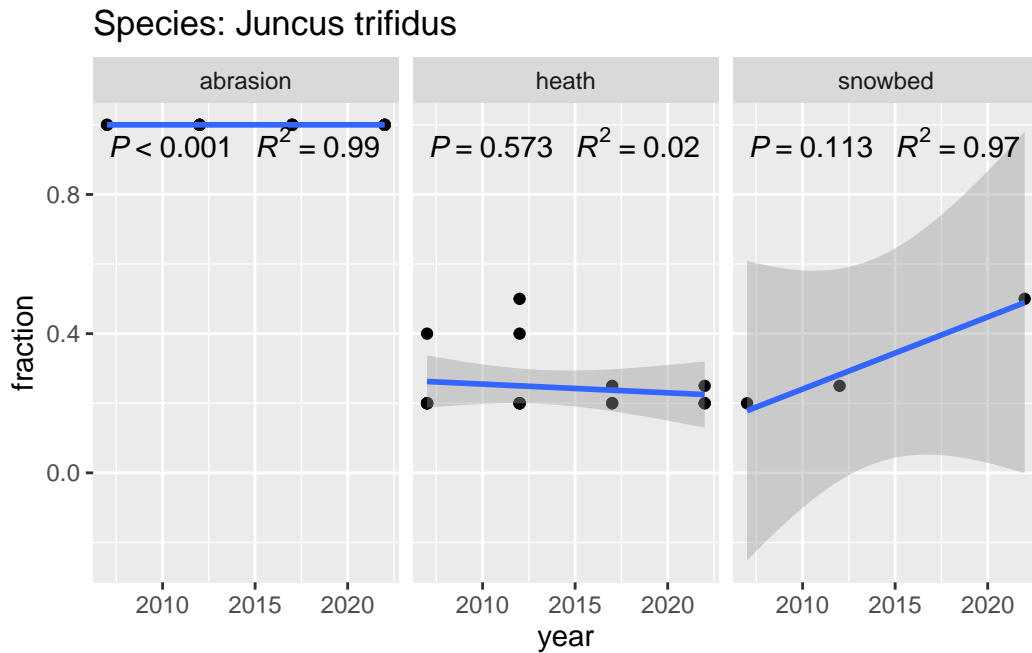
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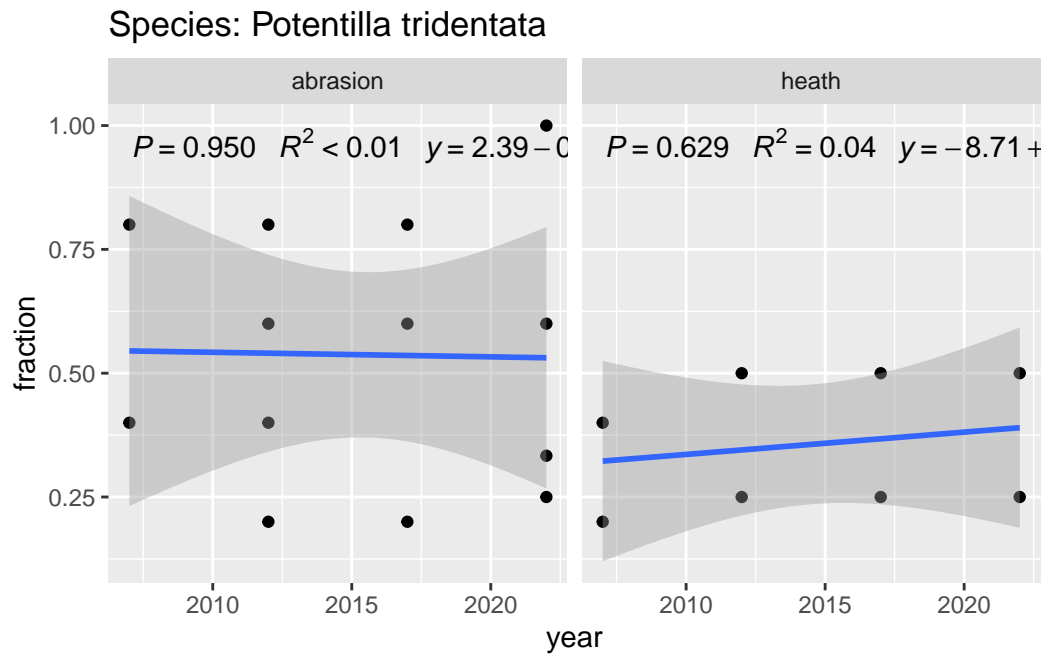


``geom_smooth()`` using formula = 'y ~ x'

Warning in `summary.lm(fm)`: essentially perfect fit: summary may be unreliable

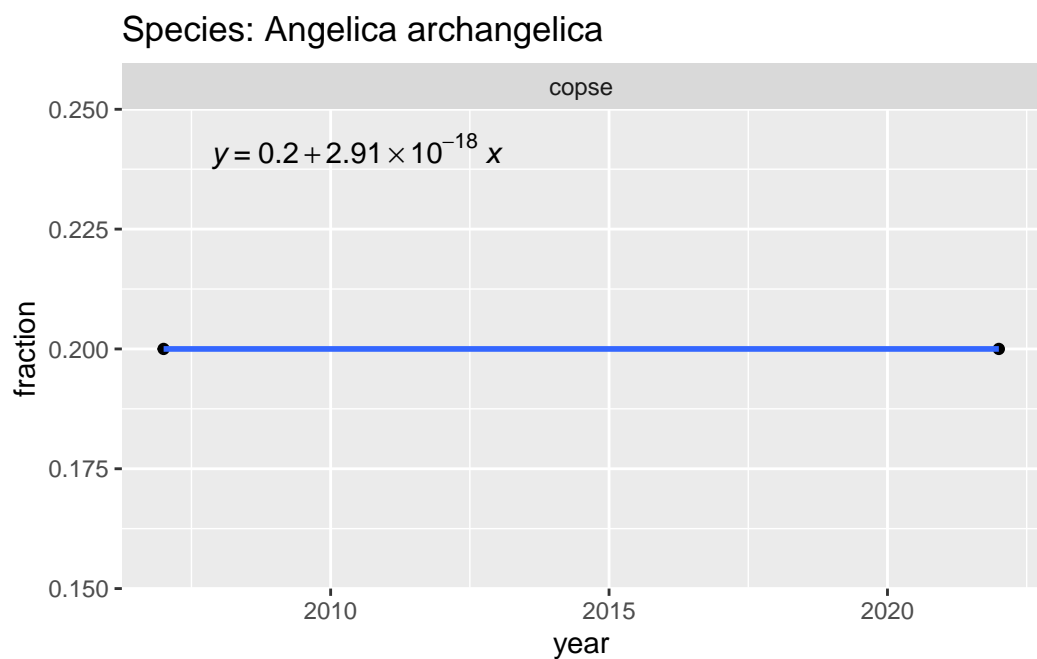


```
`geom_smooth()` using formula = 'y ~ x'
```

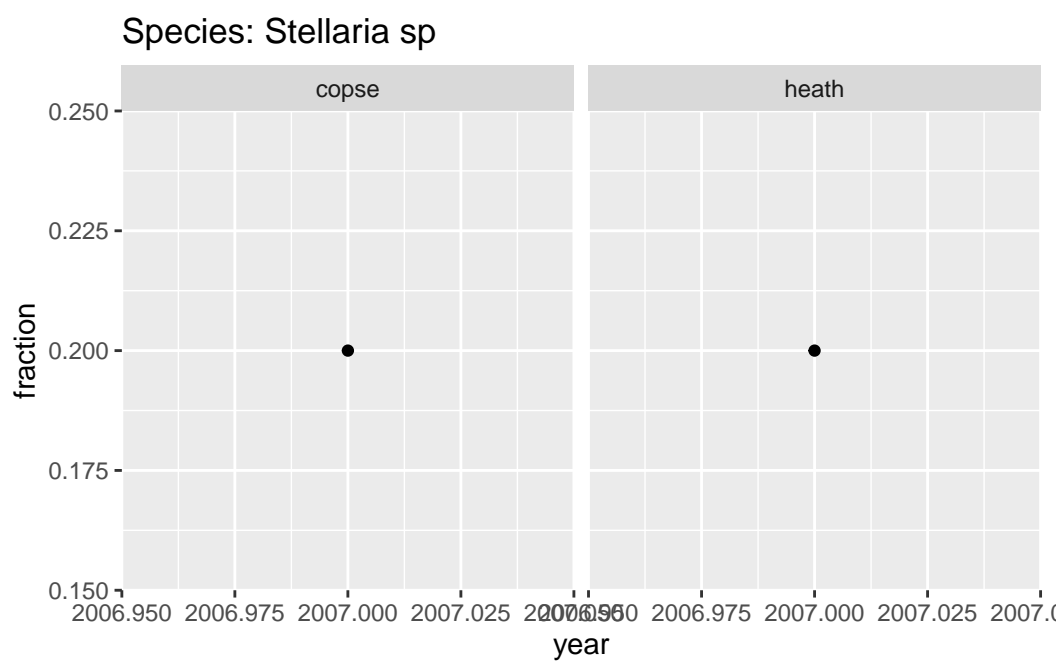


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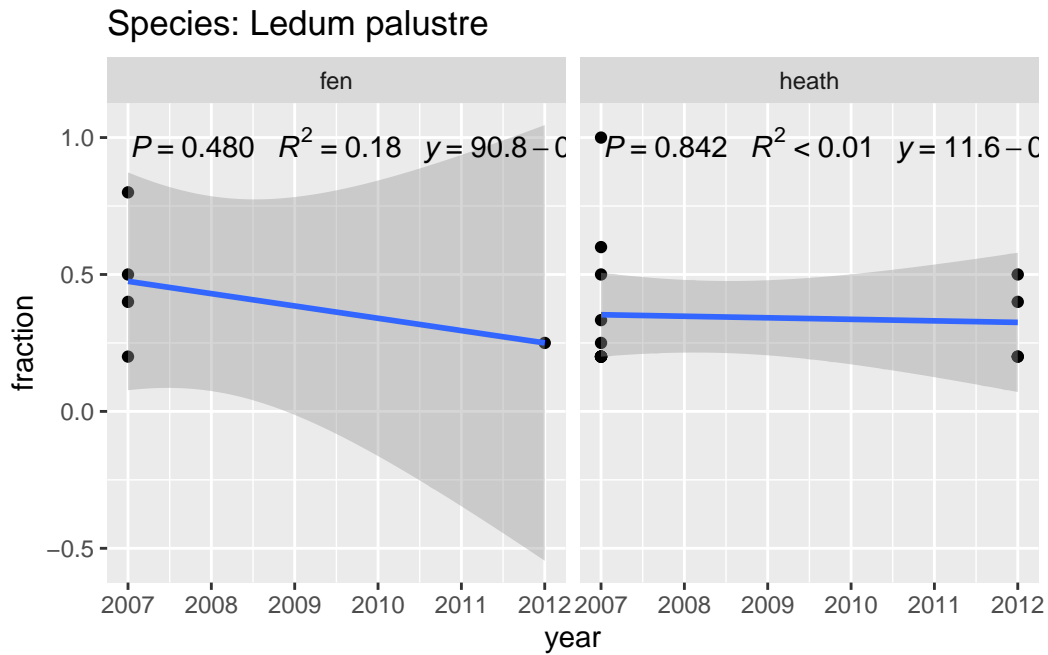
Warning in qt((1 - level)/2, df): NaNs produced
 Warning in qt((1 - level)/2, df): no non-missing arguments to max; returning
 -Inf



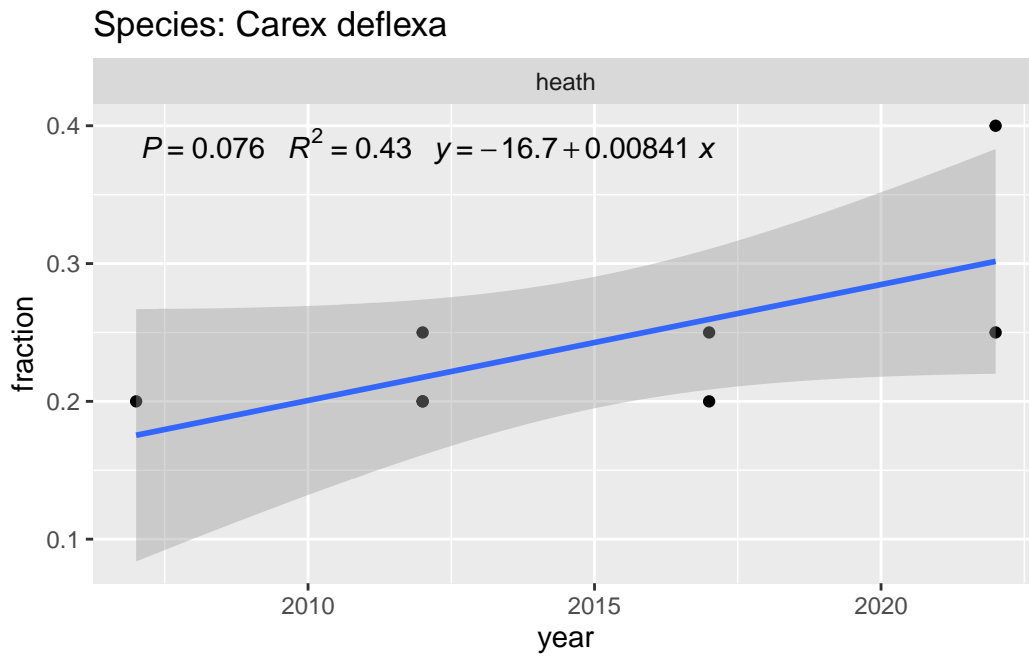
``geom_smooth()`` using formula = `'y ~ x'`



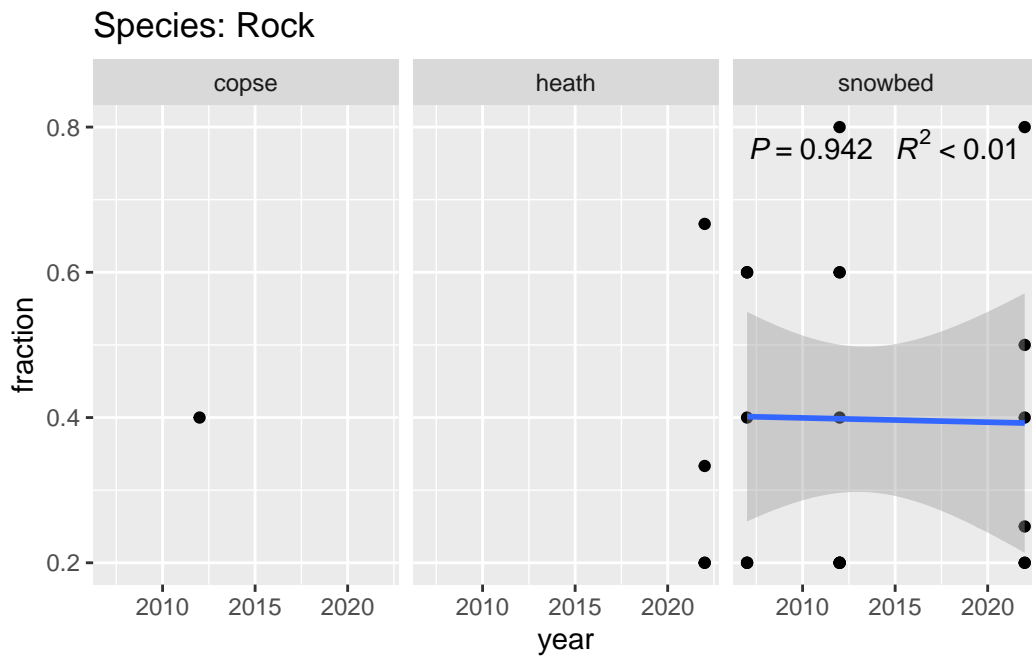
``geom_smooth()`` using formula = `'y ~ x'`



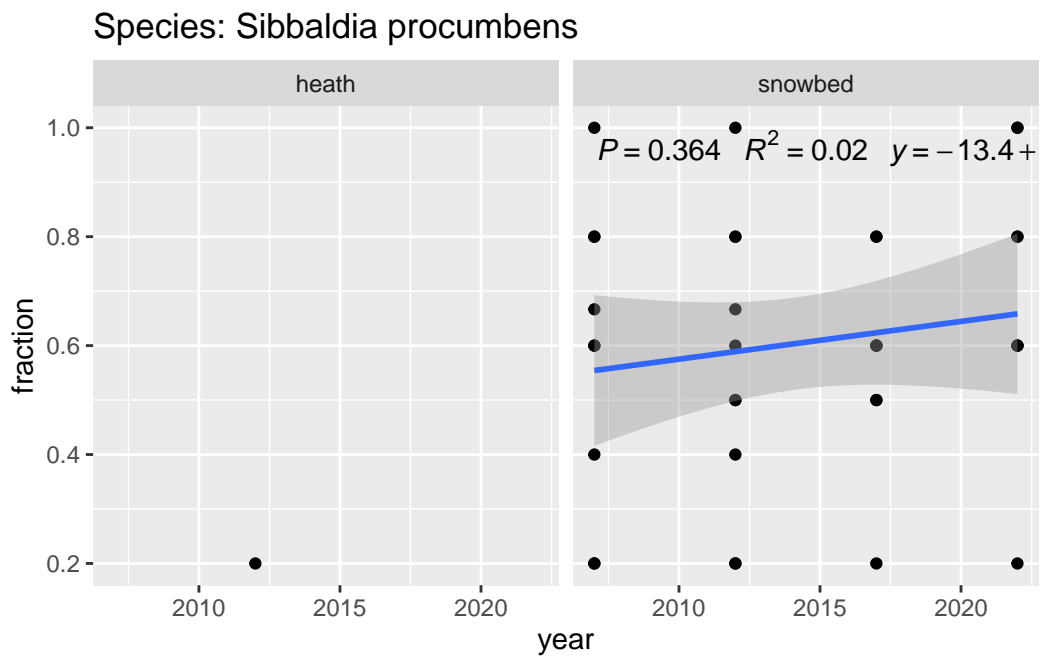
``geom_smooth()`` using formula = 'y ~ x'



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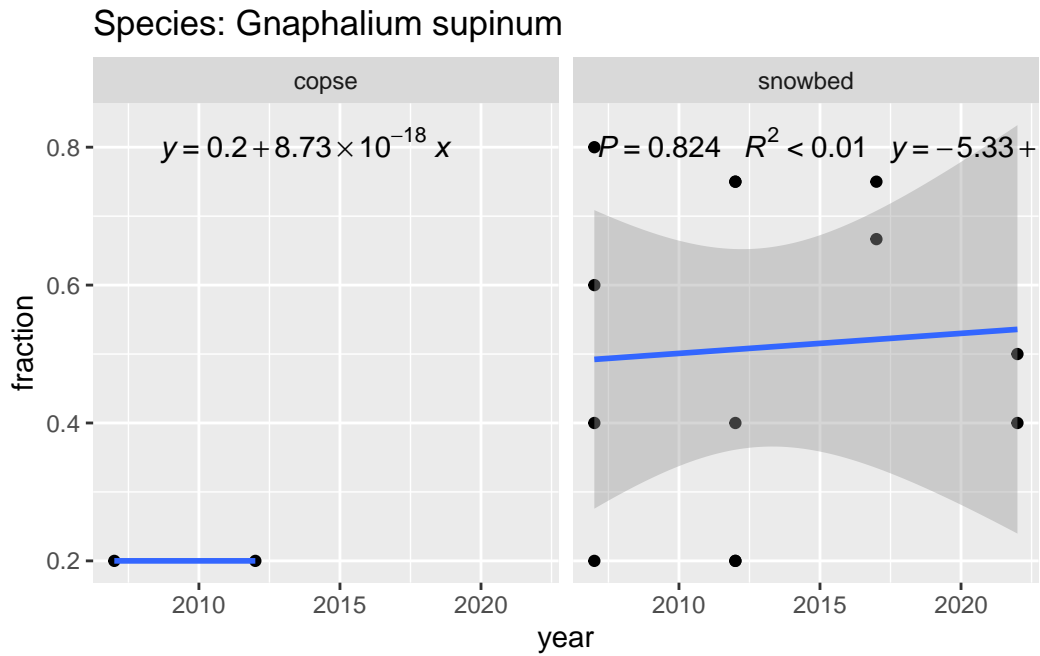


``geom_smooth()`` using formula = 'y ~ x'



``geom_smooth()`` using formula = 'y ~ x'

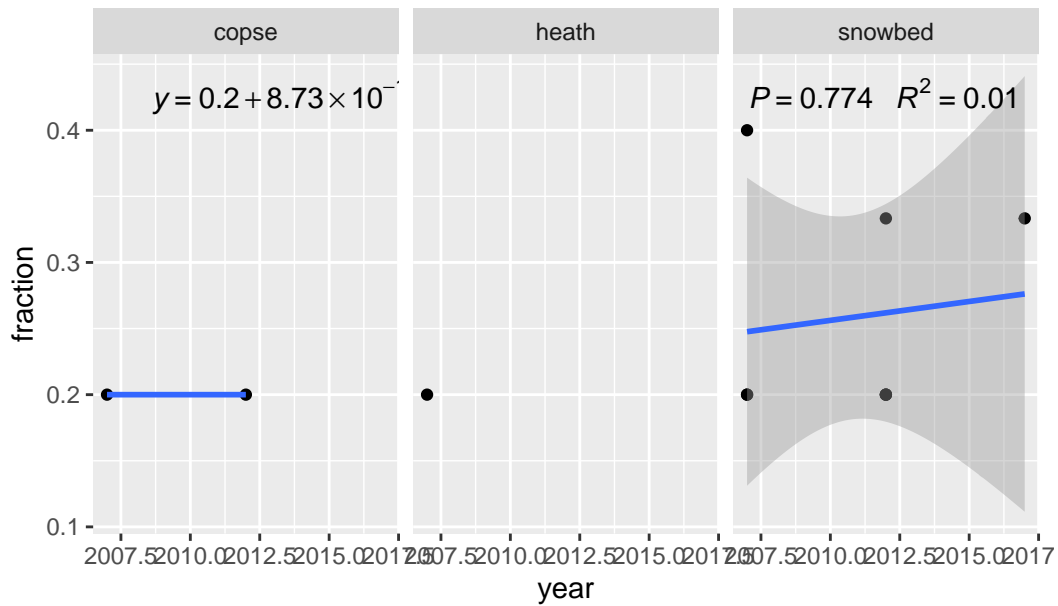
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Warning in qt((1 - level)/2, df): NaNs produced
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```
`geom_smooth()` using formula = 'y ~ x'
```

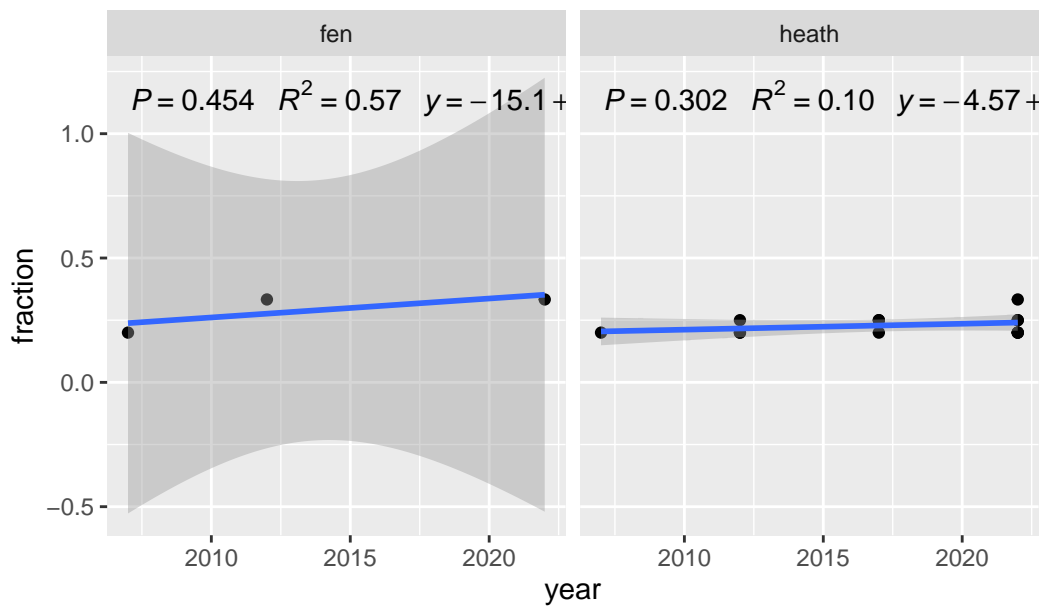
```
Warning in qt((1 - level)/2, df): NaNs produced
Warning in qt((1 - level)/2, df): no non-missing arguments to max; returning
-Inf
```


Species: *Veronica alpina*

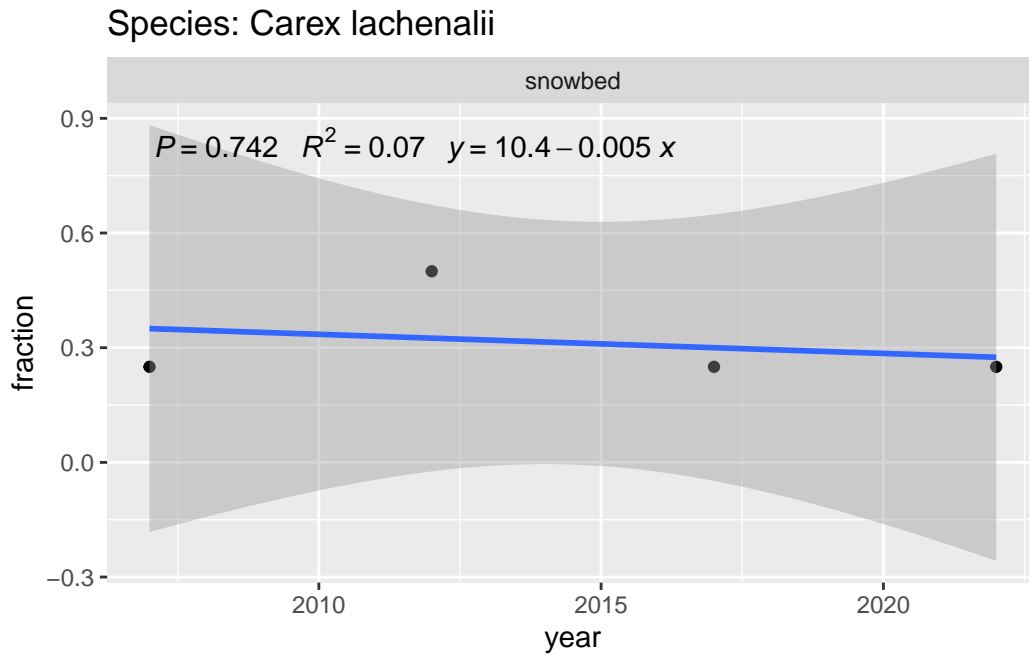


``geom_smooth()`` using formula = 'y ~ x'

Species: *Huperzia selago*



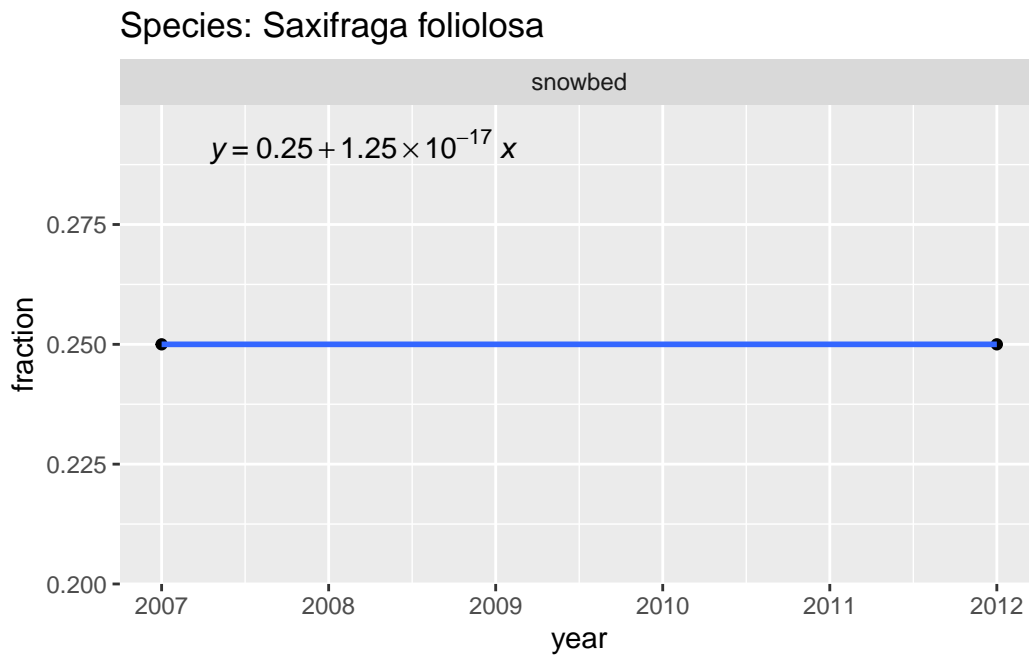
``geom_smooth()`` using formula = 'y ~ x'



``geom_smooth()`` using formula = 'y ~ x'

Warning in `qt((1 - level)/2, df)`: NaNs produced

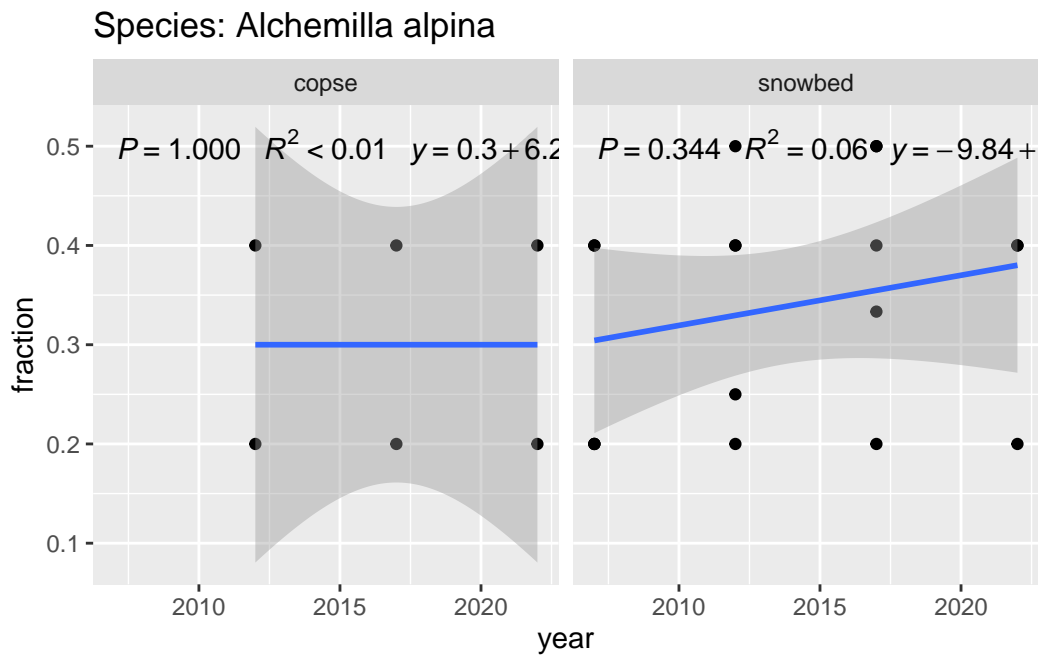
Warning in `qt((1 - level)/2, df)`: no non-missing arguments to max; returning -Inf



```
`geom_smooth()` using formula = 'y ~ x'
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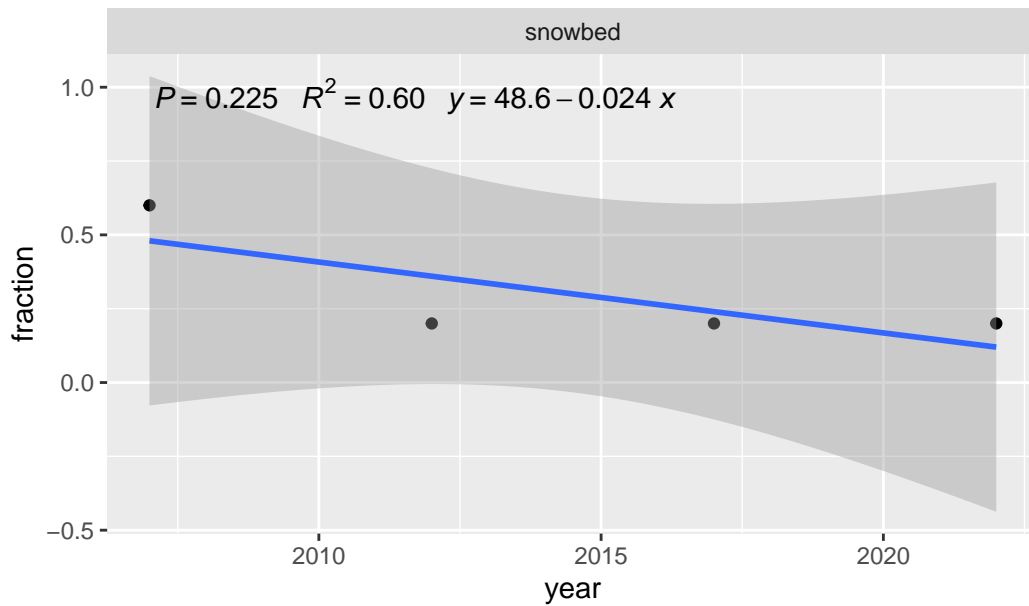
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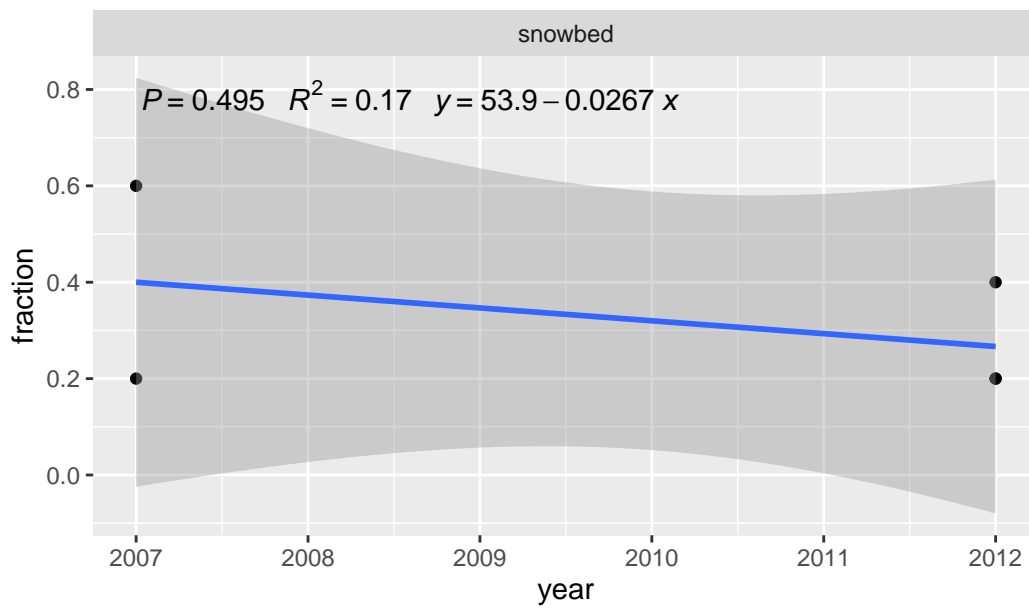
```
`geom_smooth()` using formula = 'y ~ x'
```

Species: *Chamaenerion latifolium*



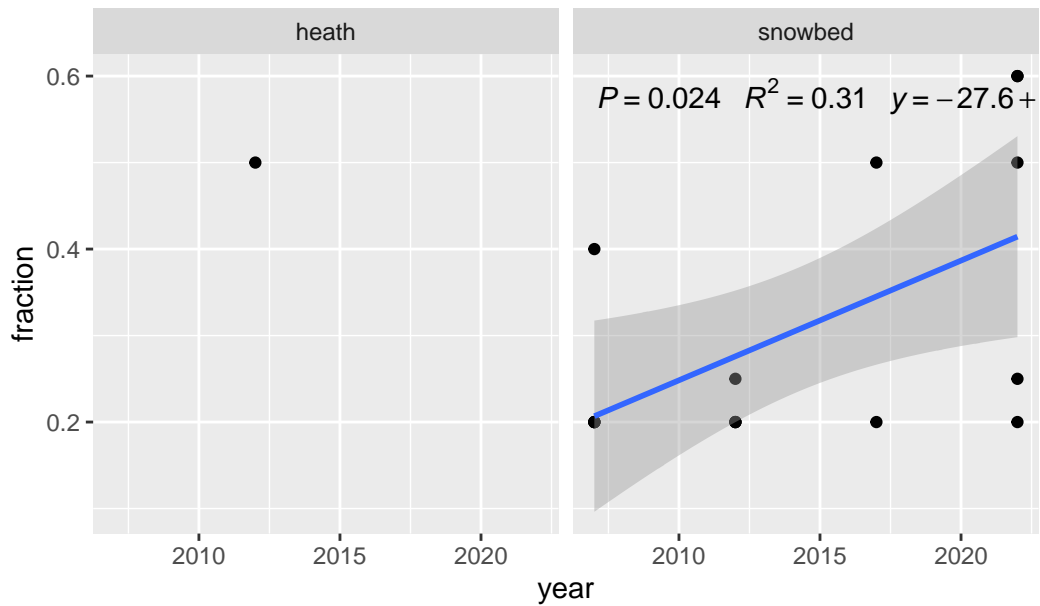
``geom_smooth()`` using formula = 'y ~ x'

Species: *Oxyria digyna*



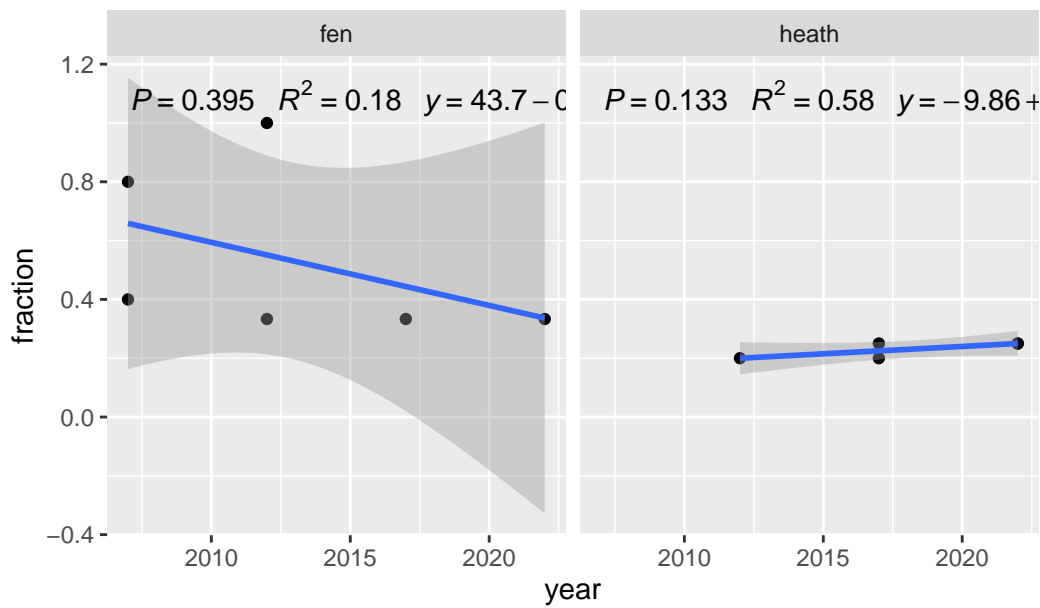
``geom_smooth()`` using formula = 'y ~ x'

Species: *Trisetum spicatum*



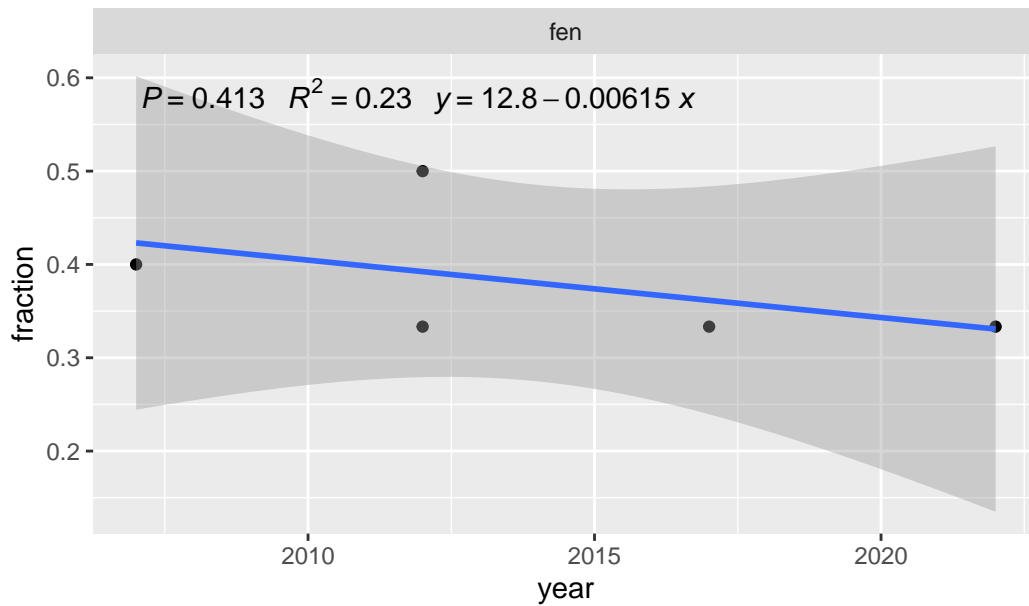
``geom_smooth()`` using formula = 'y ~ x'

Species: *Bartsia alpina*



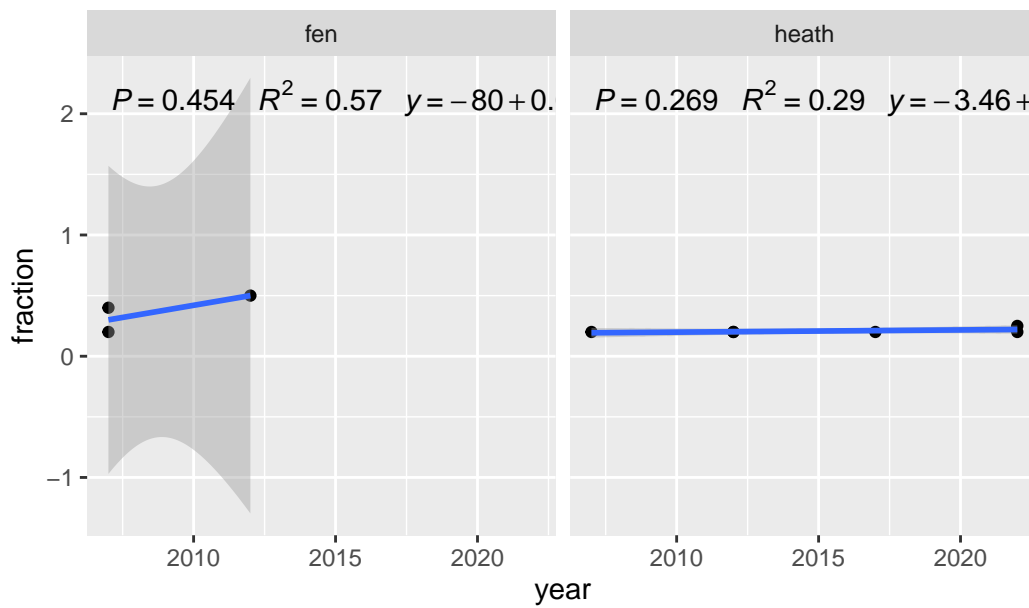
``geom_smooth()`` using formula = 'y ~ x'

fen



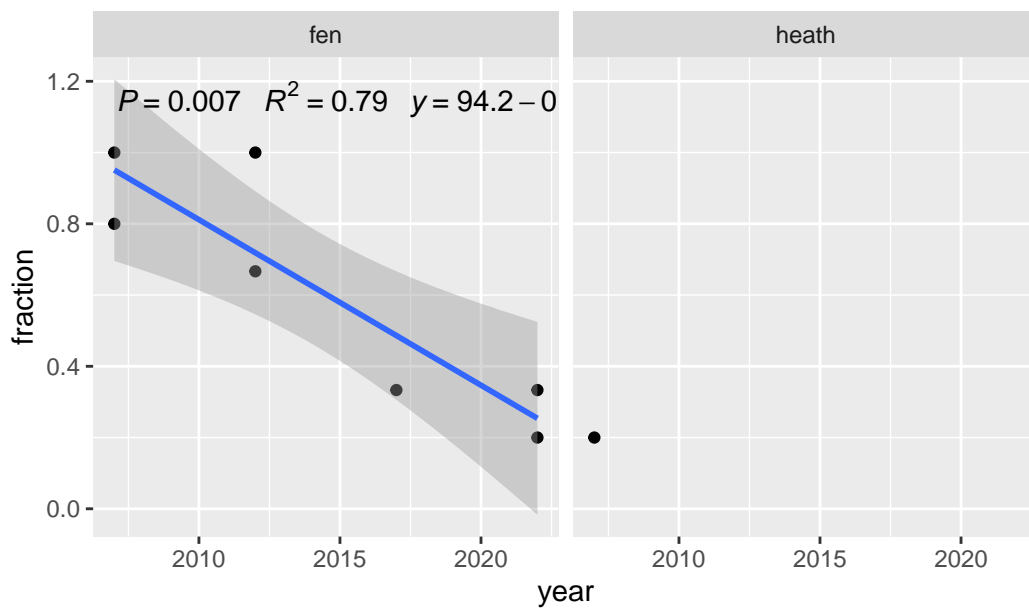
```
`geom_smooth()` using formula = 'y ~ x'
```

fen heath



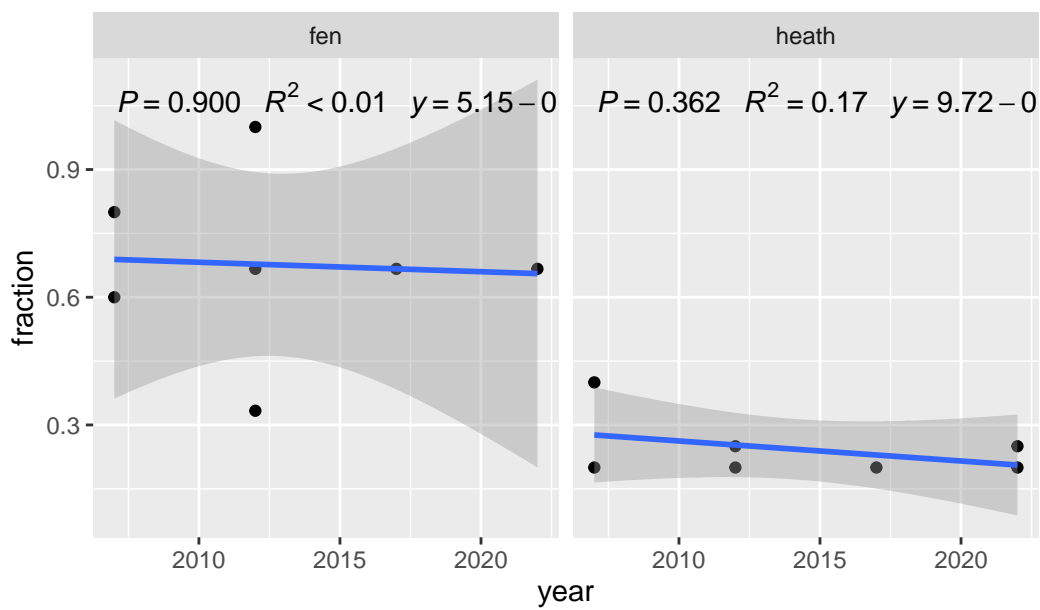
```
`geom_smooth()` using formula = 'y ~ x'
```

Species: *Pinguicula vulgaris*



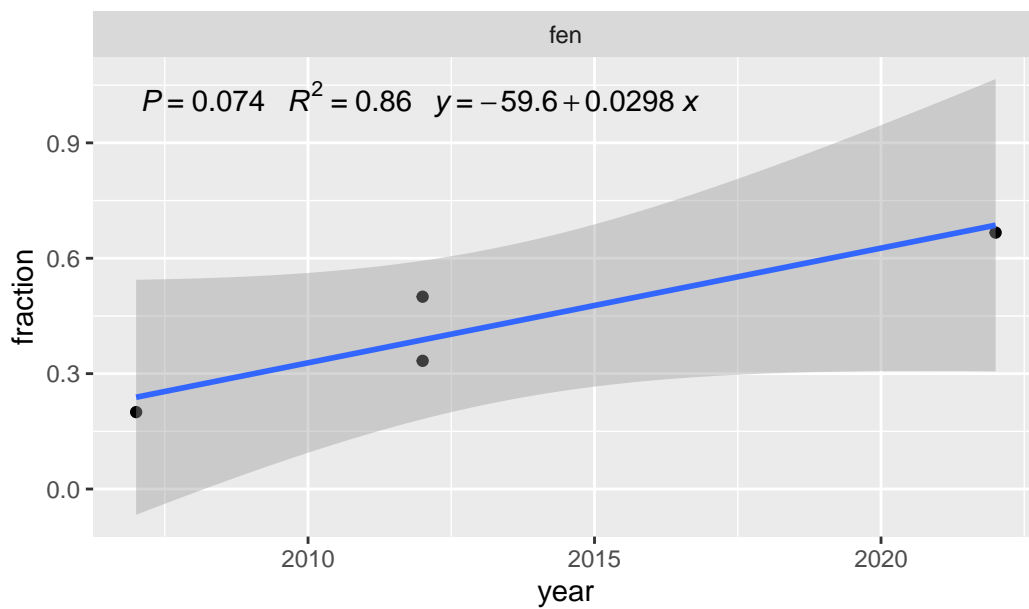
``geom_smooth()`` using formula = 'y ~ x'

Species: *Tofieldia pusilla*



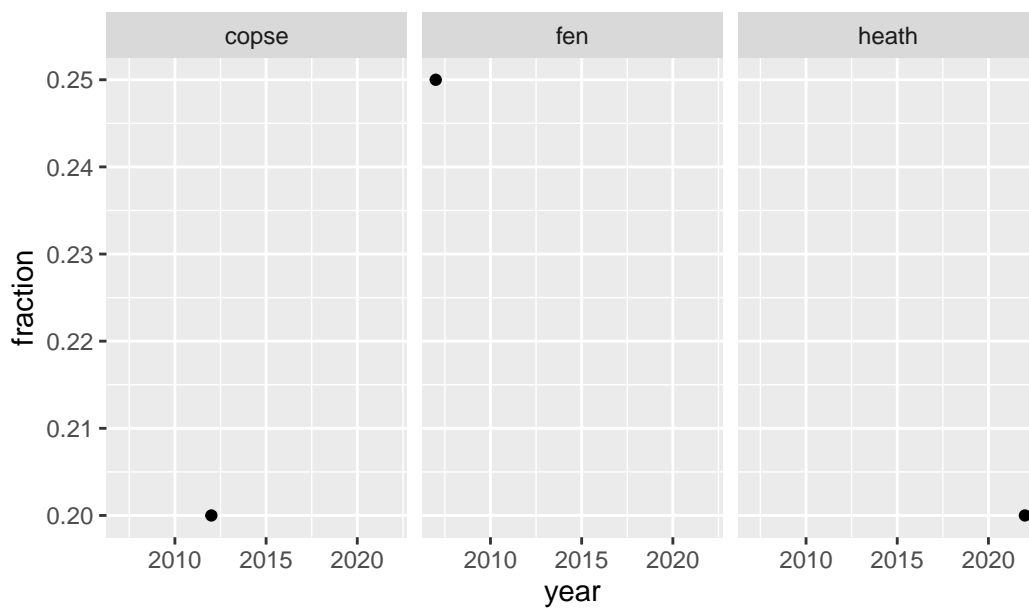
``geom_smooth()`` using formula = 'y ~ x'

Species: *Diapensia lapponica*



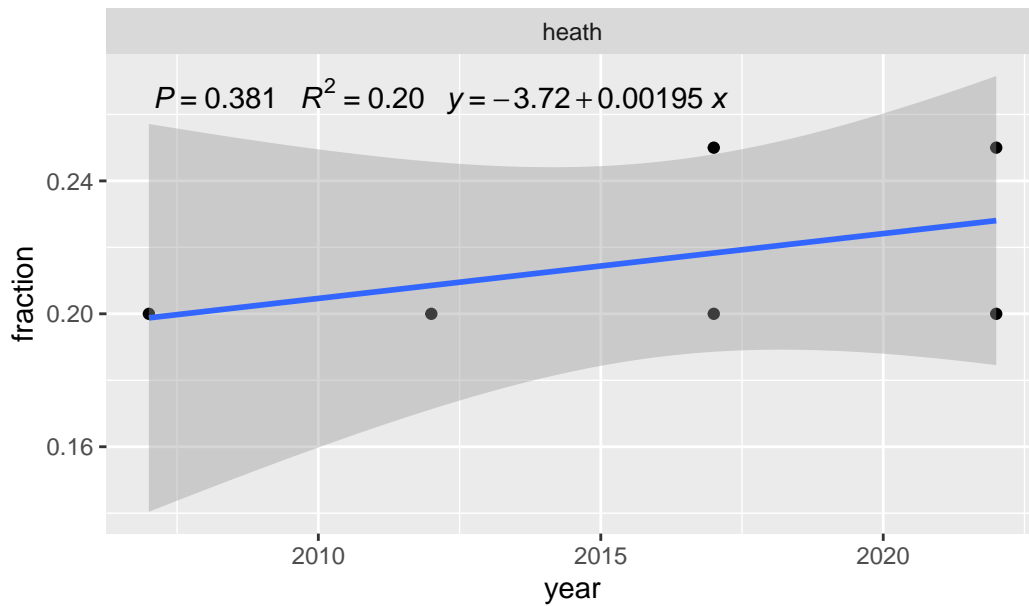
``geom_smooth()`` using formula = 'y ~ x'

Species: *Equisetum arvense*

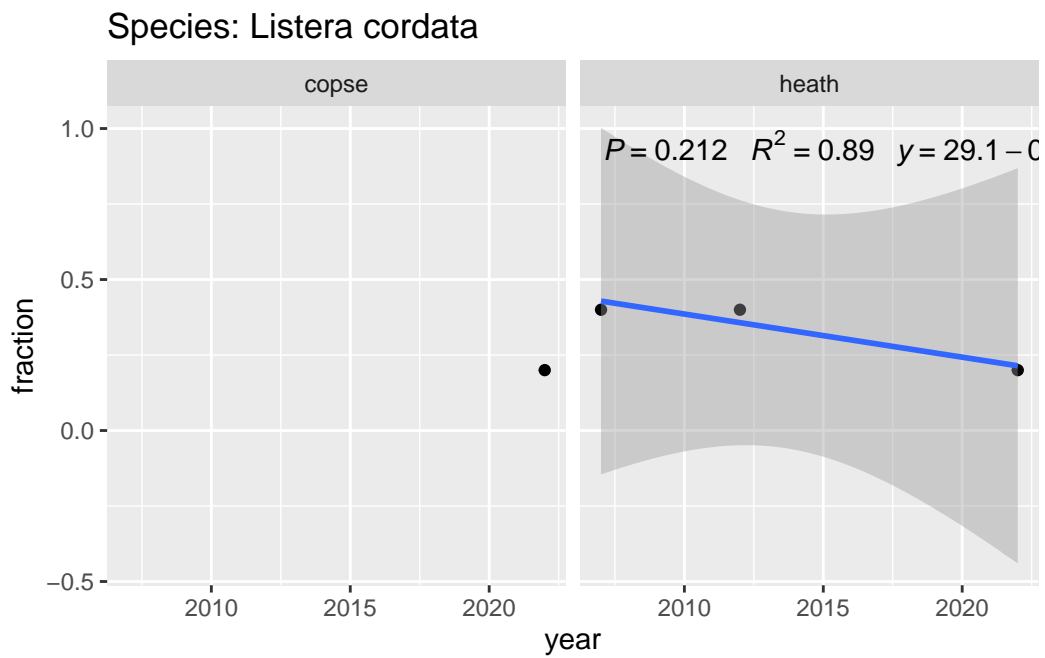


``geom_smooth()`` using formula = 'y ~ x'

Species: *Carex scirpoidea*

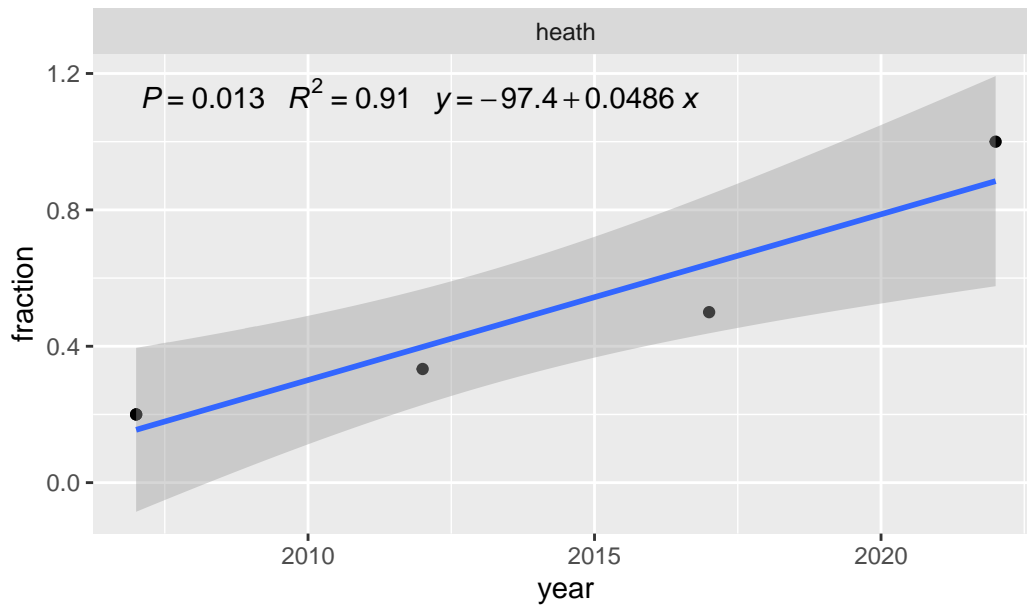


``geom_smooth()`` using formula = 'y ~ x'



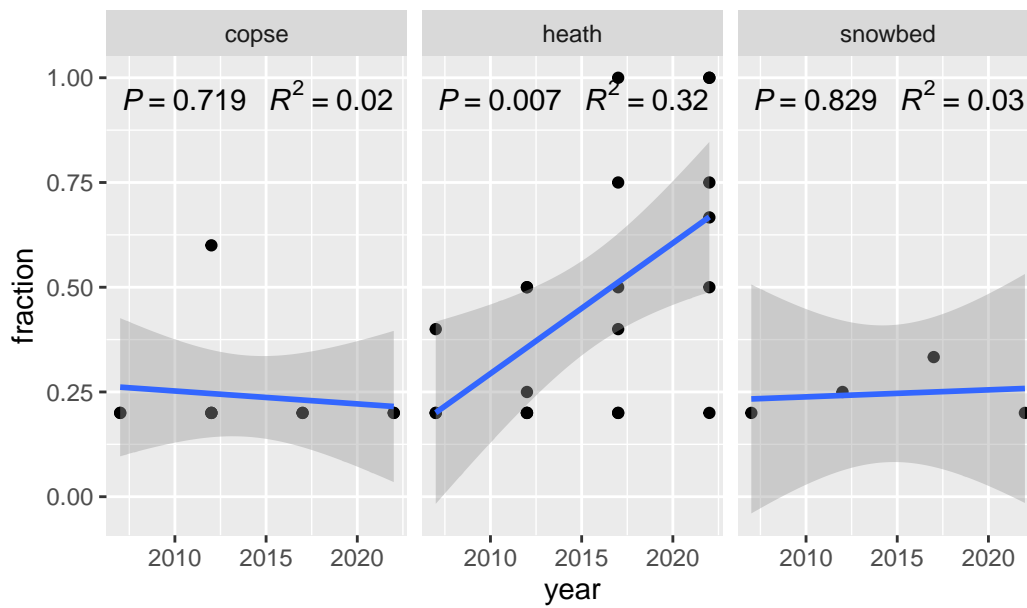
``geom_smooth()`` using formula = 'y ~ x'

Species: Hierochloë alpina



``geom_smooth()`` using formula = 'y ~ x'

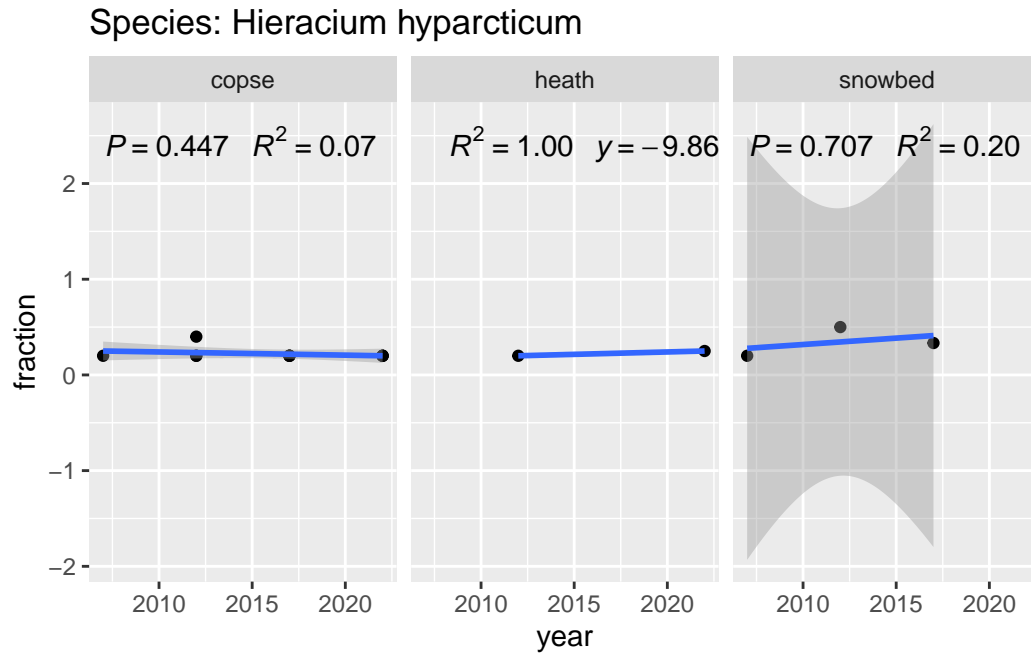
Species: Campanula gieseckiana



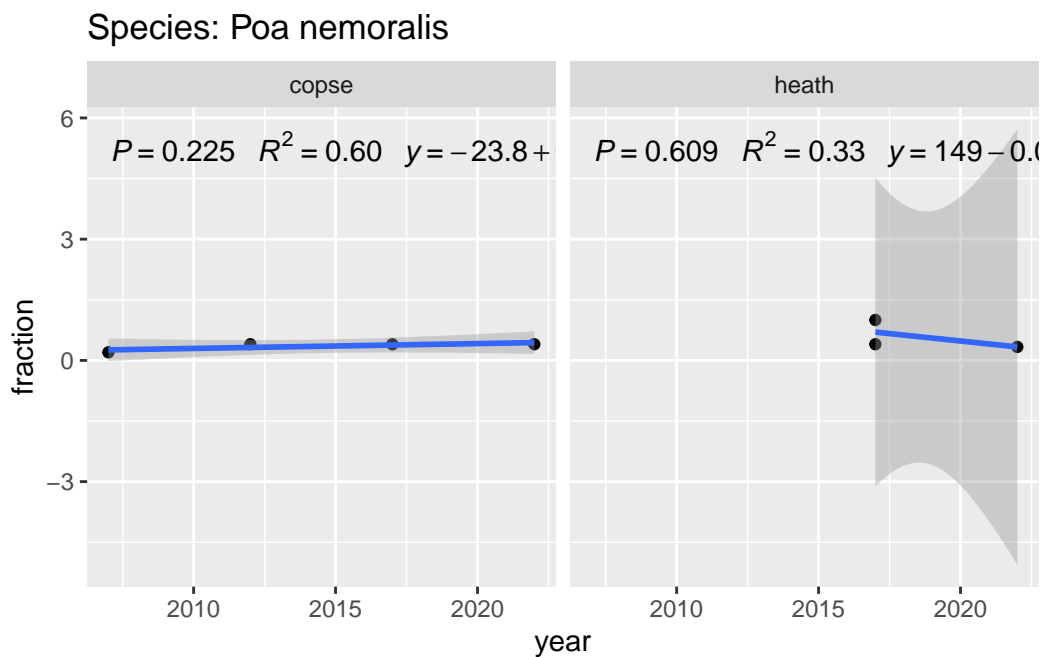
``geom_smooth()`` using formula = 'y ~ x'

Warning in qt((1 - level)/2, df): NaNs produced

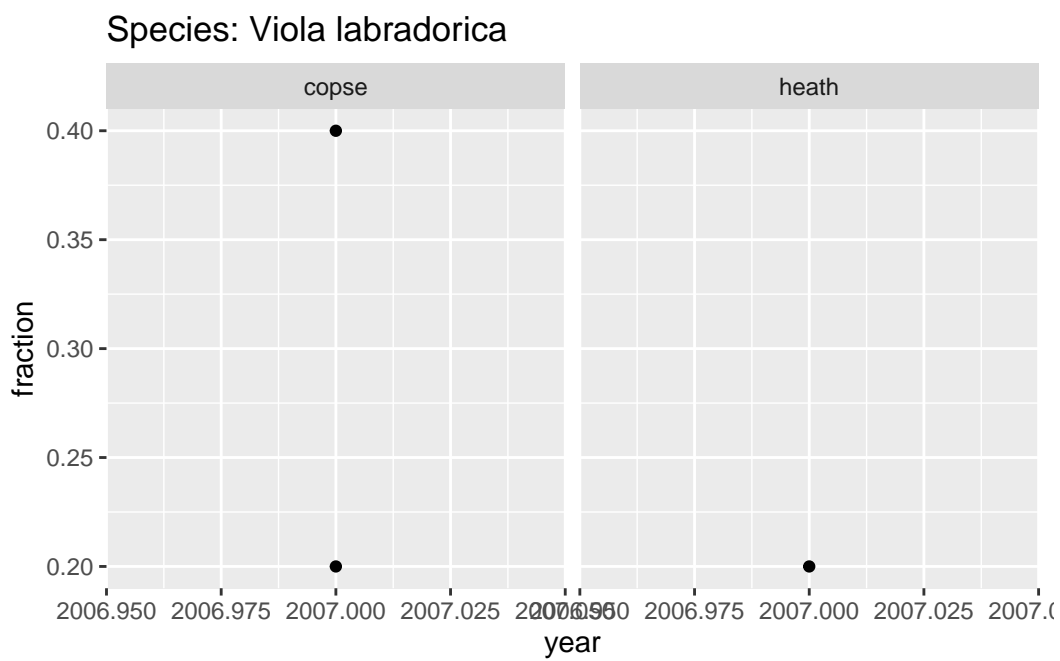
Warning in max(ids, na.rm = TRUE): no non-missing arguments to max; returning -Inf



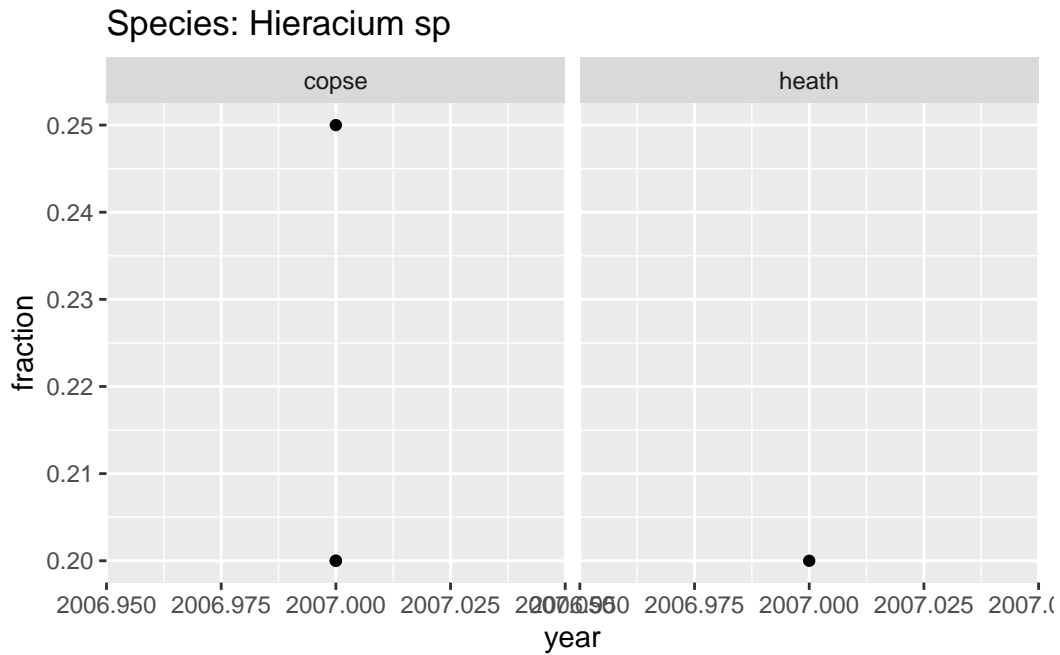
`geom_smooth()` using formula = 'y ~ x'



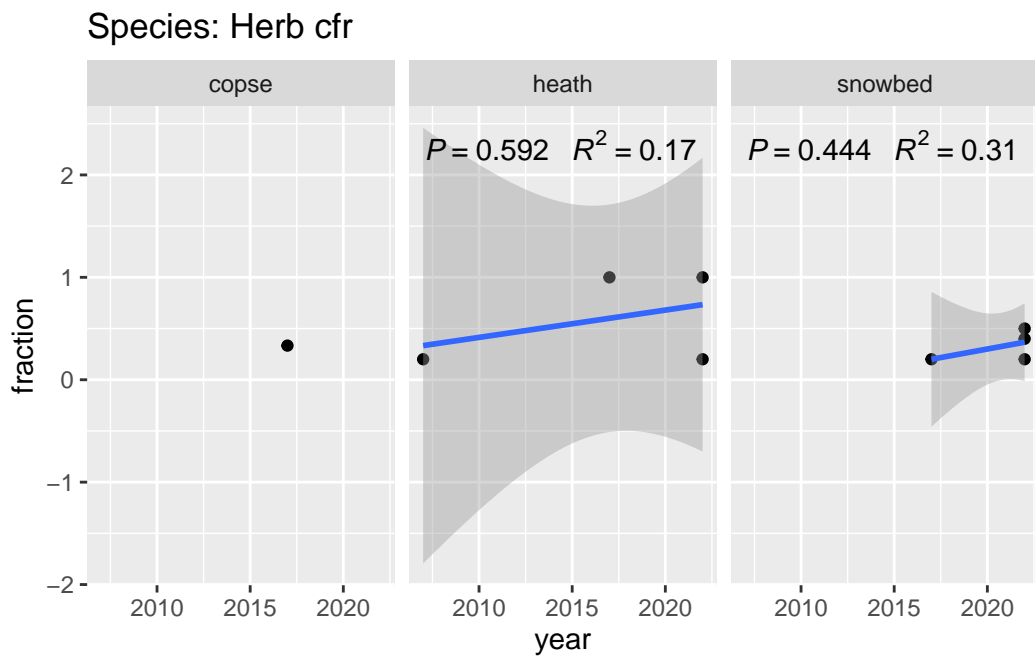
``geom_smooth()`` using formula = 'y ~ x'



``geom_smooth()`` using formula = 'y ~ x'

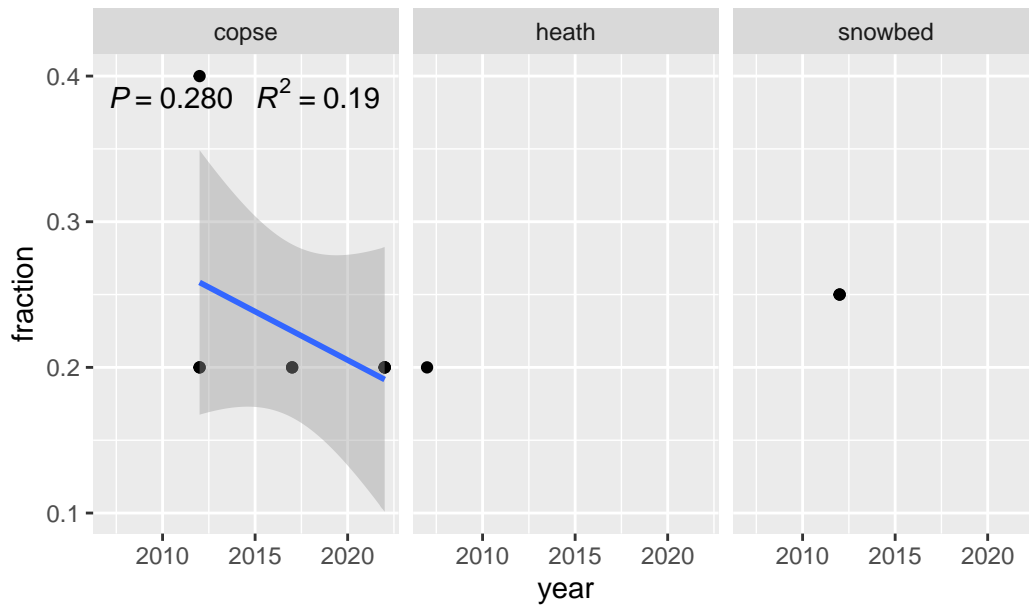


``geom_smooth()`` using formula = 'y ~ x'



``geom_smooth()`` using formula = 'y ~ x'

Species: *Chamaenerion angustifolium*

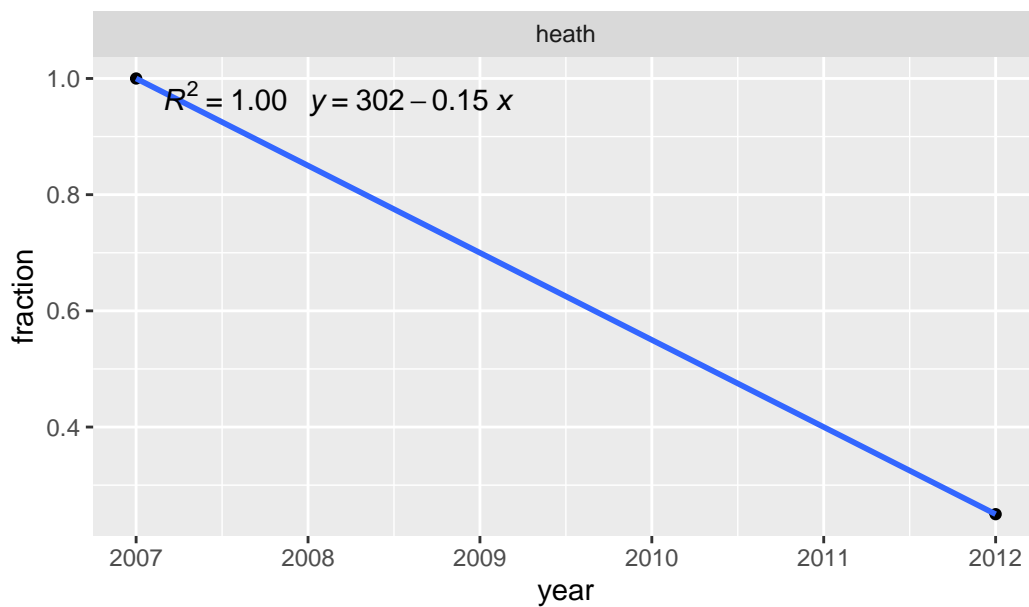


``geom_smooth()`` using formula = 'y ~ x'

Warning in `qt((1 - level)/2, df)`: NaNs produced

Warning in `qt((1 - level)/2, df)`: no non-missing arguments to max; returning -Inf

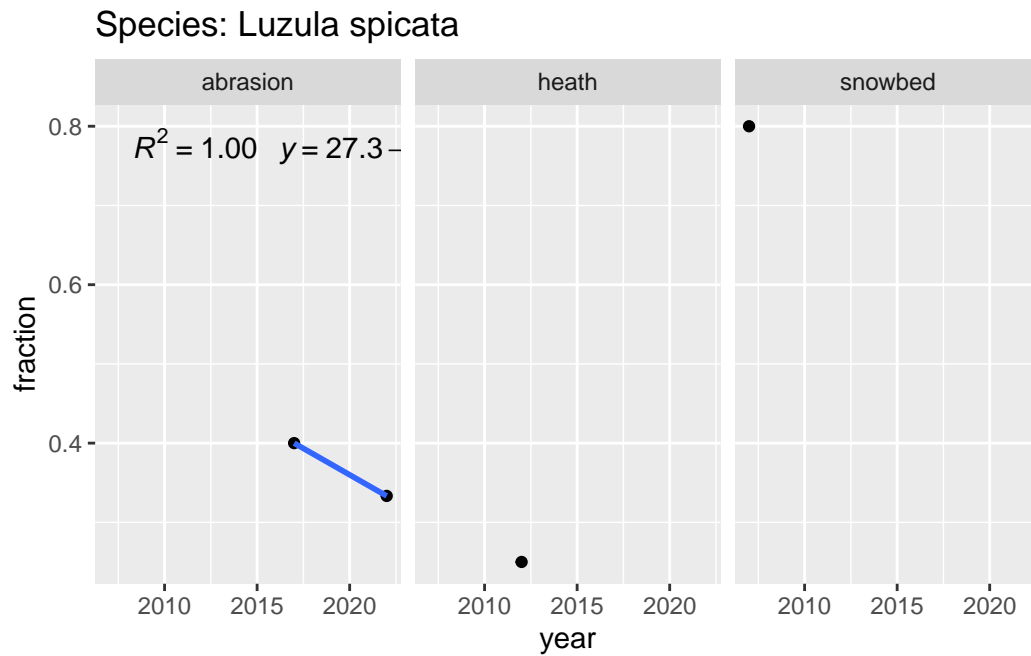
Species: *Poa glauca*



```
`geom_smooth()` using formula = 'y ~ x'
```

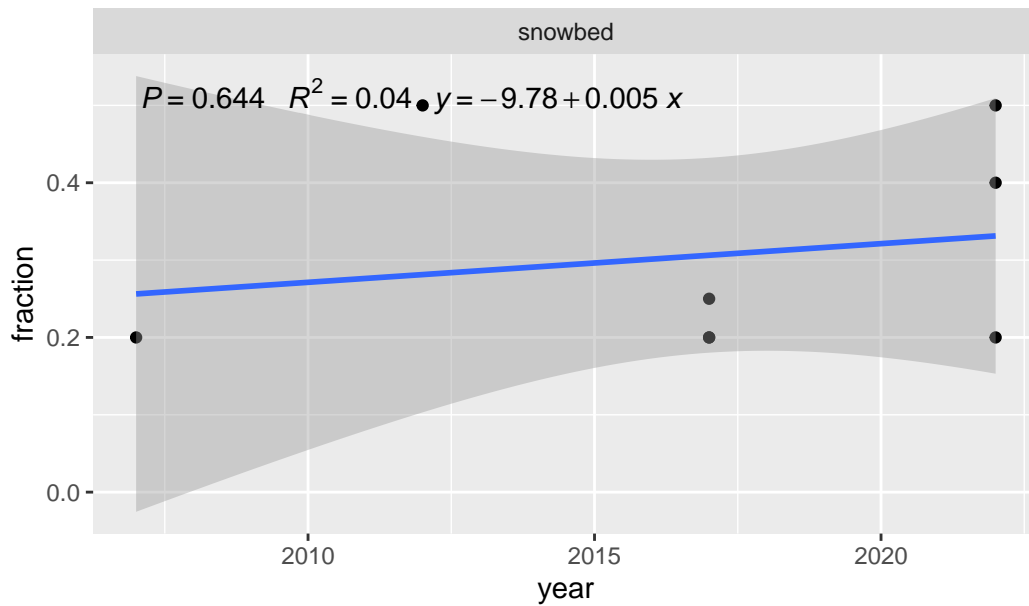
Warning in qt((1 - level)/2, df): NaNs produced

Warning in qt((1 - level)/2, df): no non-missing arguments to max; returning
-Inf



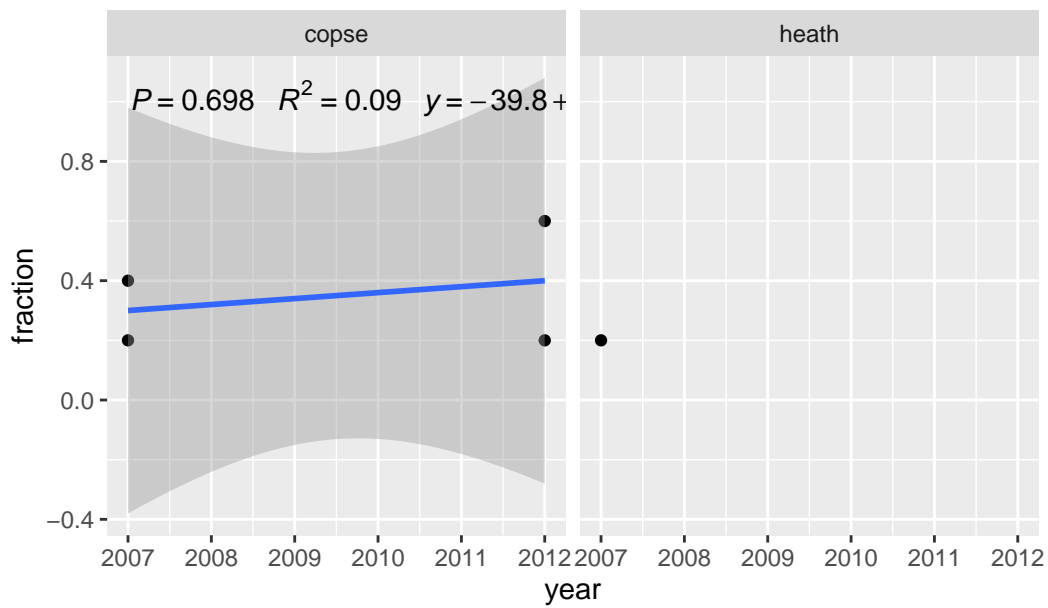
```
`geom_smooth()` using formula = 'y ~ x'
```

Species: *Poa alpina*



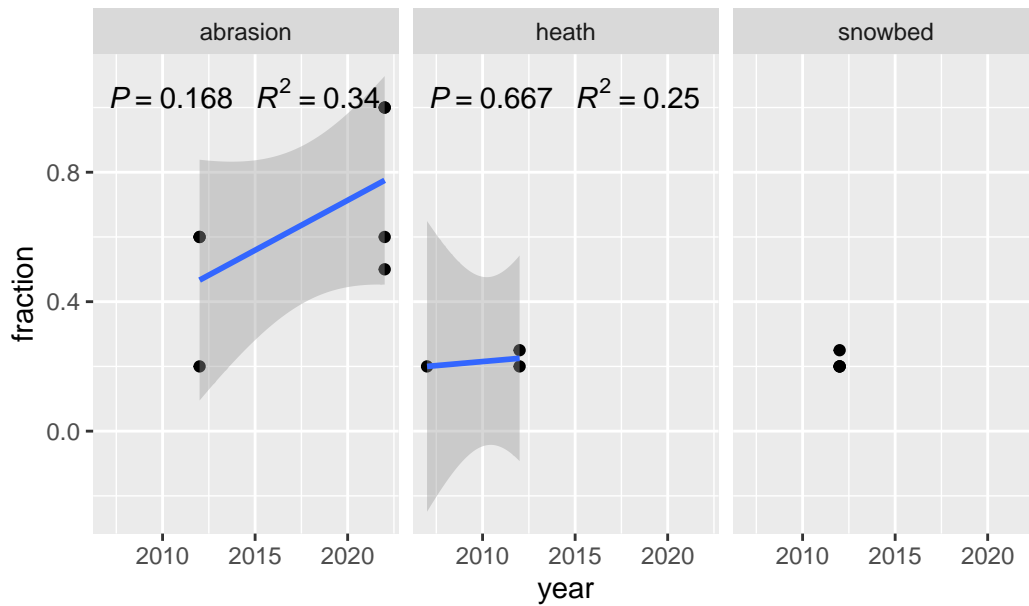
``geom_smooth()`` using formula = 'y ~ x'

Species: *Trisetum cfr*



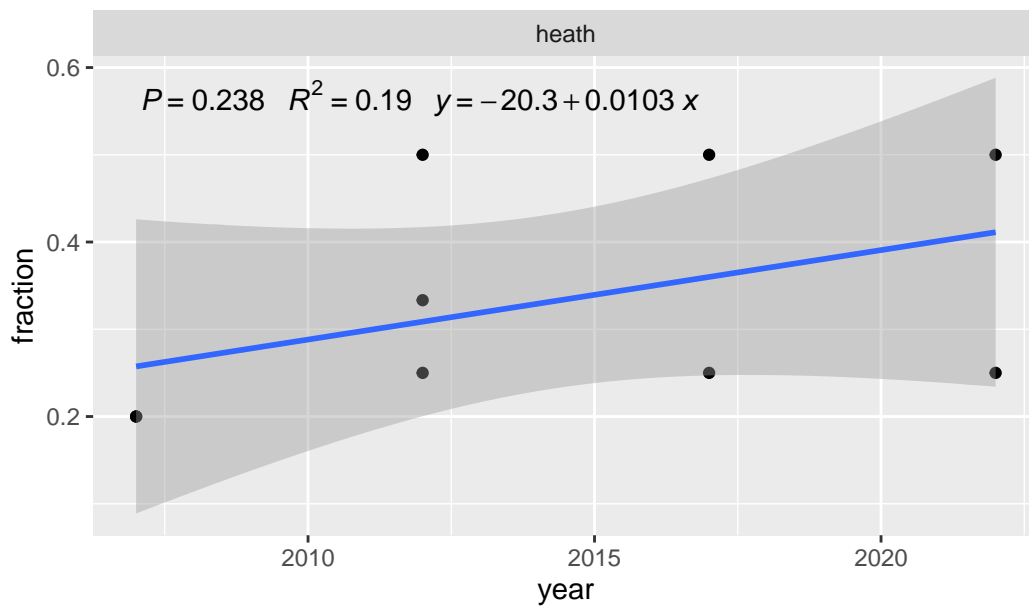
``geom_smooth()`` using formula = 'y ~ x'

Species: *Agrostis mertensii*

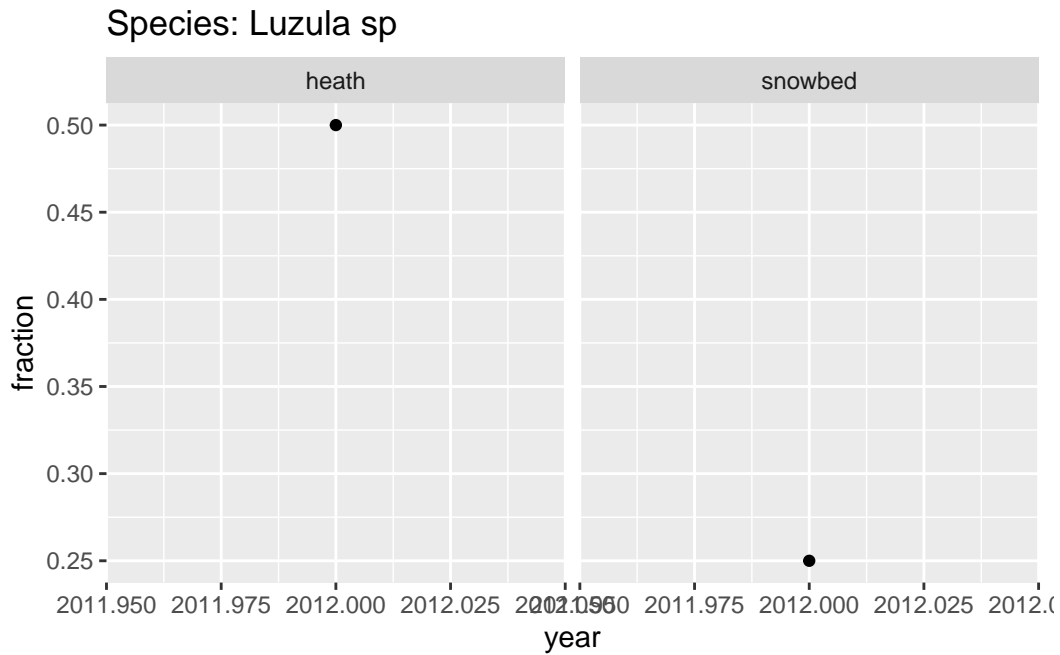


``geom_smooth()`` using formula = 'y ~ x'

Species: *Festuca vivipara*



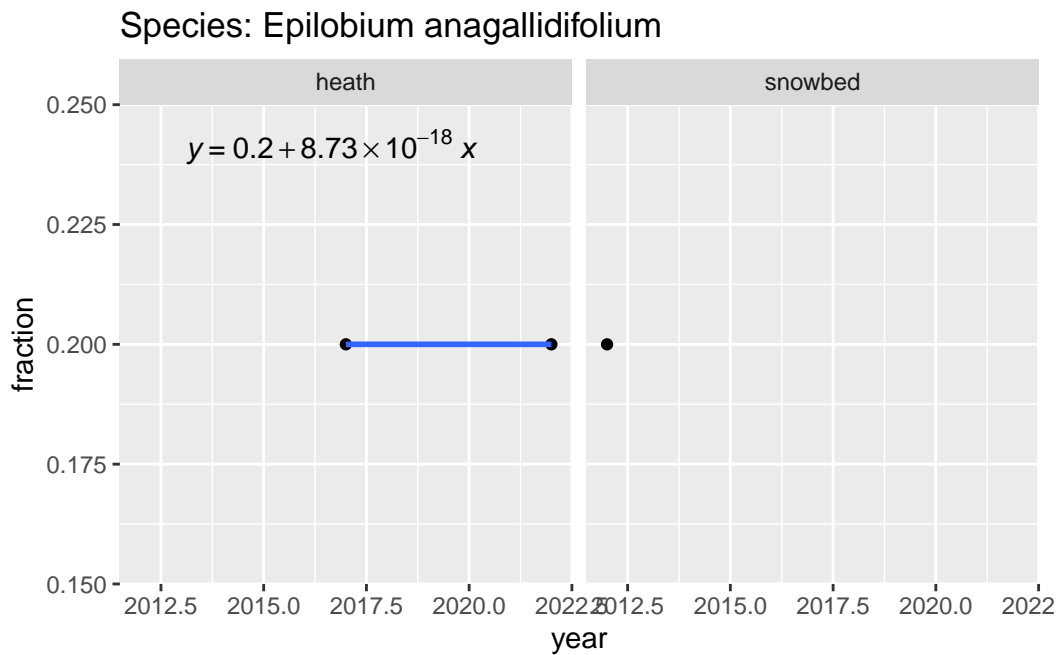
``geom_smooth()`` using formula = 'y ~ x'



``geom_smooth()`` using formula = 'y ~ x'

Warning in qt((1 - level)/2, df): NaNs produced

Warning in qt((1 - level)/2, df): no non-missing arguments to max; returning -Inf



```
`geom_smooth()` using formula = 'y ~ x'
```

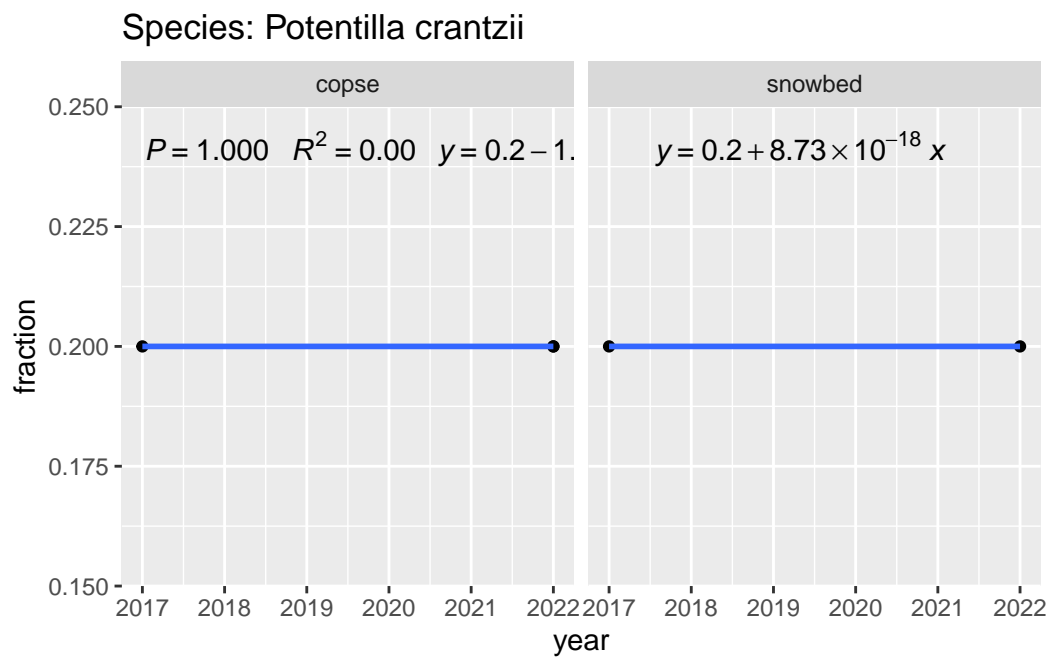
Warning in qt((1 - level)/2, df): NaNs produced

Warning in summary.lm(fm): essentially perfect fit: summary may be unreliable

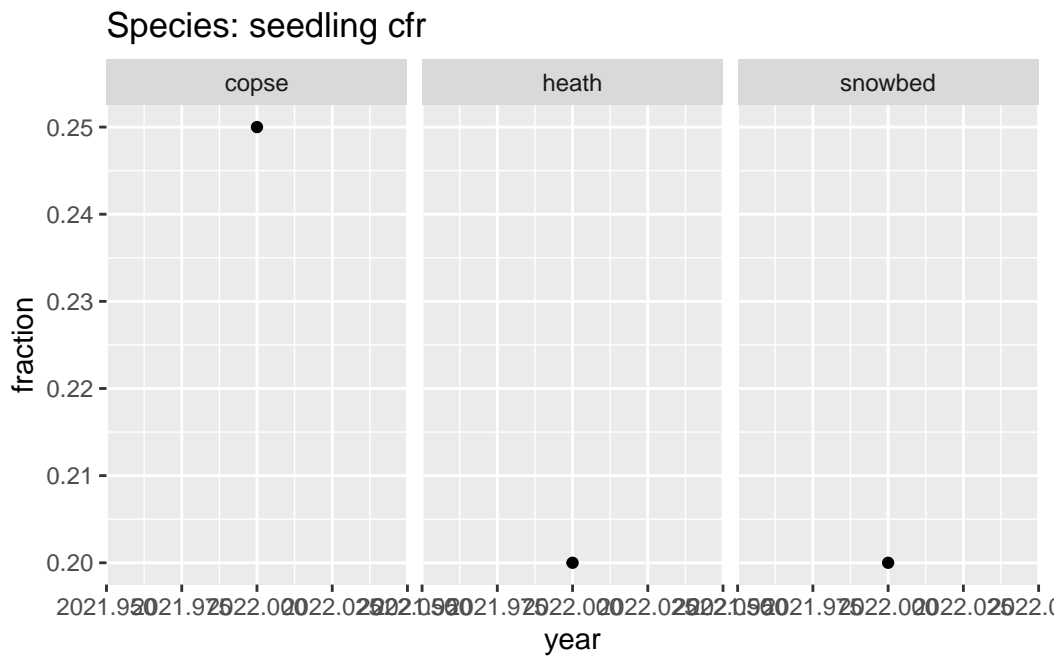
Warning in ci_f_ncp(stat, df1 = df1, df2 = df2, probs = probs): Upper limit outside search range. Set to the maximum of the parameter range.

Warning in compute_group(...): CI computation error: Error in check_output(cint, probs = probs)

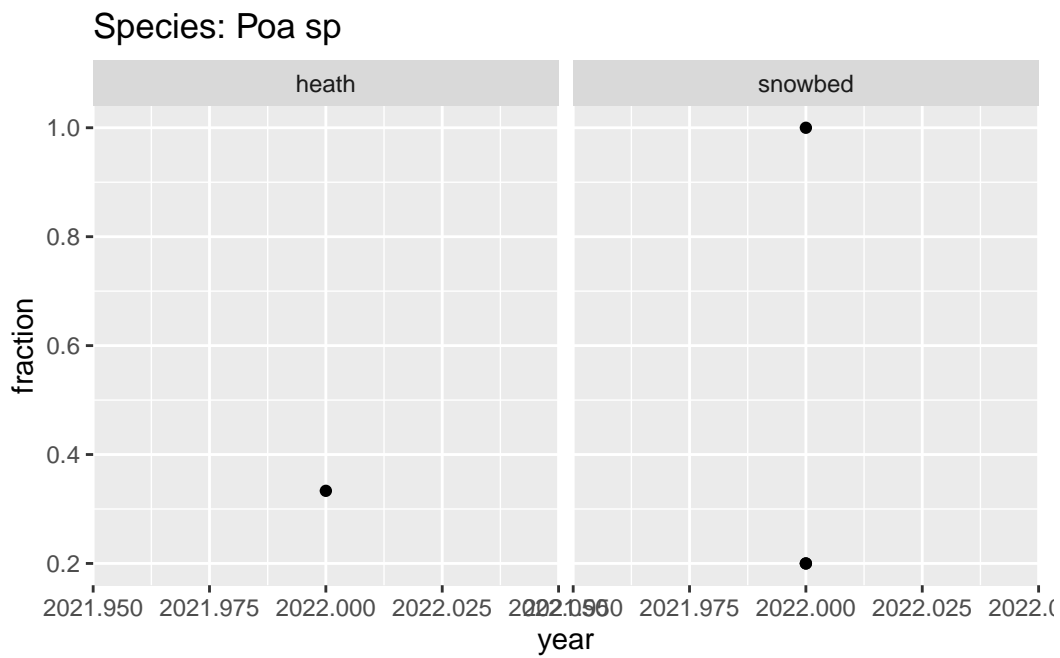
Warning in max(ids, na.rm = TRUE): no non-missing arguments to max; returning -Inf



```
`geom_smooth()` using formula = 'y ~ x'
```



``geom_smooth()`` using formula = 'y ~ x'



``geom_smooth()`` using formula = 'y ~ x'

