## North East Region

## River South Esk SAC: Grade 2



## Summary Table

Percentage chance meeting requirement

| Eggs required <br> $\left(\mathrm{m}^{2}\right)^{\mathrm{a}}$ | Area <br> $\left(\mathrm{m}^{2}\right)^{\mathrm{a}}$ | Total egg <br> requirement ${ }^{\mathrm{a}}$ | 2014 | 2015 | 2016 | 2017 | 2018 | Overall | Grade |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2.84 | $2,027,900$ | $5,757,312$ | 83.79 | 80.6 | 86.08 | 77.58 | 67.24 | 79.06 | 2 |

[^0]
## 1. Converting Reported Catches to Numbers of Returning Salmon

Reported Catches (black $=$ retained, blue $=$ released $)$


Monthly flow data


Monthly stock estimates (out of season in black)


Annual estimated stock


Plot shows 50, 70 and $90 \%$ of the estimates (wide to narrow bars).

Annual catch as a proportion of stock

2. Converting Numbers of Returning Salmon to Numbers of Spawning Females Ages of fish



## 3. Converting Number of Spawners to Number of Eggs

Egg contents of females


Monthly number of eggs


Plot shows 50, 70 and $90 \%$ of the estimates (wide to narrow bars).

## Total annual egg numbers



Plot shows 50,70 and $90 \%$ of the estimates (wide to narrow bars).

## 4. Egg requirement

Areas of salmon habitat in square meters

There is an estimated $2,281,060$ square meters of known salmon habitat in the River South Esk SAC and a further 23,422 square meters where salmon may be present.

## Egg requirement


5. Percentage chance that the egg requirement has been reached

| Year | Percentage above |
| ---: | ---: |
| 2014 | 83.79 |
| 2015 | 80.60 |
| 2016 | 86.08 |
| 2017 | 77.58 |
| 2018 | 67.24 |



Plot shows 50, 70 and $90 \%$ of the estimates (wide to narrow bars). Shaded areas represent 50, 70 and $90 \%$ of the estimated egg requirements (dark to light areas)

## River North Esk: Grade 1



## Summary Table

|  |  |  | Percentage chance meeting requirement |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Eggs required <br> $\left(\mathrm{m}^{2}\right)^{\mathrm{a}}$ | Area <br> $\left(\mathrm{m}^{2}\right)^{\mathrm{a}}$ | Total egg <br> requirement | 2014 | 2015 | 2016 | 2017 | 2018 | Overall | Grade |
| 8.27 | $2,310,600$ | $19,104,783$ | 98.85 | 99.48 | 98.97 | 96.91 | 43.57 | 87.56 | 1 |

${ }^{\text {a }}$ Figures presented are median values

## 1. Converting Reported Catches to Numbers of Returning Salmon

Reported Catches (black $=$ retained, blue $=$ released $)$


Monthly flow data


Monthly stock estimates (out of season in black)


Annual estimated stock


Plot shows 50, 70 and $90 \%$ of the estimates (wide to narrow bars).

Annual catch as a proportion of stock

2. Converting Numbers of Returning Salmon to Numbers of Spawning Females Ages of fish



## 3. Converting Number of Spawners to Number of Eggs

Egg contents of females


## Monthly number of eggs



Plot shows 50, 70 and $90 \%$ of the estimates (wide to narrow bars).

## Total annual egg numbers



Plot shows 50, 70 and $90 \%$ of the estimates (wide to narrow bars).

## 4. Egg requirement

## Areas of salmon habitat in square meters

There is an estimated 2,589,901 square meters of known salmon habitat in the River North Esk and a further 35,777 square meters where salmon may be present.

## Egg requirement


5. Percentage chance that the egg requirement has been reached

| Year | Percentage above |
| ---: | ---: |
| 2014 | 98.85 |
| 2015 | 99.48 |
| 2016 | 98.97 |
| 2017 | 96.91 |
| 2018 | 43.57 |



Plot shows 50, 70 and $90 \%$ of the estimates (wide to narrow bars). Shaded areas represent 50, 70 and $90 \%$ of the estimated egg requirements (dark to light areas)

## Bervie Water: Grade 3



Detailed information on catches is not publicly available for this assessment area

## Summary Table

|  |  |  | Percentage chance meeting requirement |  |  |  |  |  | Grade |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Eggs required $\left(m^{2}\right)^{a}$ | $\begin{aligned} & \text { Area } \\ & \left(\mathrm{m}^{2}\right)^{\mathrm{a}} \end{aligned}$ | Total egg requirement ${ }^{\text {a }}$ | 2014 | 2015 | 2016 | 2017 | 2018 | Overall |  |
| 1.14 | 226,900 | 259,409 | 1.83 | 6.16 | 8.93 | 36.76 | 4.02 | 11.54 | 3 |

[^1]
## 1. Converting Reported Catches to Numbers of Returning Salmon

Annual estimated stock

2. Converting Numbers of Returning Salmon to Numbers of Spawning Females Ages of fish


## 3. Converting Number of Spawners to Number of Eggs

Egg contents of females


Total annual egg numbers


Plot shows 50, 70 and $90 \%$ of the estimates (wide to narrow bars).

## 4. Egg requirement

## Areas of salmon habitat in square meters

There is an estimated 247,541 square meters of known salmon habitat in the Bervie Water and a further 10,307 square meters where salmon may be present.

## Egg requirement


5. Percentage chance that the egg requirement has been reached

| Year | Percentage above |
| ---: | ---: |
| 2014 | 1.83 |
| 2015 | 6.16 |
| 2016 | 8.93 |
| 2017 | 36.76 |
| 2018 | 4.02 |



Plot shows 50, 70 and $90 \%$ of the estimates (wide to narrow bars). Shaded areas represent 50, 70 and $90 \%$ of the estimated egg requirements (dark to light areas)

## Carron Water: Grade 3



## Summary Table

|  |  |  | Percentage chance meeting requirement |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Eggs required <br> $\left(\mathrm{m}^{2}\right)^{\mathrm{a}}$ | Area <br> $\left(\mathrm{m}^{2}\right)^{\mathrm{a}}$ | Total egg <br> requirement $^{\mathrm{a}}$ | 2014 | 2015 | 2016 | 2017 | 2018 | Overall | Grade |  |
| 2.68 | 57,300 | 153,358 | 0 | 0 | 0 | 0 | 0 | 0 | 3 |  |

[^2]
## 1. Converting Reported Catches to Numbers of Returning Salmon

Reported Catches (black $=$ retained, blue $=$ released $)$


Monthly flow data


Monthly stock estimates (out of season in black)


Plot shows 50, 70 and $90 \%$ of the estimates (wide to narrow bars).

Annual estimated stock


Plot shows 50, 70 and $90 \%$ of the estimates (wide to narrow bars).

Annual catch as a proportion of stock


Plot shows 50, 70 and $90 \%$ of the estimates (wide to narrow bars).
2. Converting Numbers of Returning Salmon to Numbers of Spawning Females Ages of fish


Monthly number of spawning females


Plot shows 50, 70 and $90 \%$ of the estimates (wide to narrow bars).

## 3. Converting Number of Spawners to Number of Eggs

Egg contents of females


Monthly number of eggs


Total annual egg numbers


Plot shows 50, 70 and $90 \%$ of the estimates (wide to narrow bars).

## 4. Egg requirement

## Areas of salmon habitat in square meters

There is an estimated 48,140 square meters of known salmon habitat in the Carron Water and a further 16,935 square meters where salmon may be present.

## Egg requirement


5. Percentage chance that the egg requirement has been reached

| Year | Percentage above |
| :---: | ---: |
| 2014 | - |
| 2015 | - |
| 2016 | - |
| 2017 | - |
| 2018 | - |



Plot shows 50, 70 and $90 \%$ of the estimates (wide to narrow bars). Shaded areas represent 50, 70 and $90 \%$ of the estimated egg requirements (dark to light areas)

## Cowie Water: Grade 3



## Summary Table

| $\begin{aligned} & \text { Eggs required } \\ & \left(\mathrm{m}^{2}\right)^{\mathrm{a}} \end{aligned}$ | $\begin{aligned} & \text { Area } \\ & \left(\mathrm{m}^{2}\right)^{\mathrm{a}} \end{aligned}$ | Total egg requirement ${ }^{\text {a }}$ | Percentage chance meeting requirement |  |  |  |  |  | Grade |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | 2014 | 2015 | 2016 | 2017 | 2018 | Overall |  |
| 3.07 | 127,300 | 391,018 | 3.97 | 16.8 | 0.81 | 33.05 | 6.43 | 12.21 | 3 |

[^3]
## 1. Converting Reported Catches to Numbers of Returning Salmon

Reported Catches (black $=$ retained, blue $=$ released $)$


Monthly flow data


Monthly stock estimates (out of season in black)


Annual estimated stock


Annual catch as a proportion of stock

2. Converting Numbers of Returning Salmon to Numbers of Spawning Females Ages of fish



Plot shows 50, 70 and $90 \%$ of the estimates (wide to narrow bars).

## 3. Converting Number of Spawners to Number of Eggs

Egg contents of females


## Monthly number of eggs



Total annual egg numbers


Plot shows 50,70 and $90 \%$ of the estimates (wide to narrow bars).

## 4. Egg requirement

## Areas of salmon habitat in square meters

There is an estimated 141,768 square meters of known salmon habitat in the Cowie Water and a further 2,859 square meters where salmon may be present.

## Egg requirement


5. Percentage chance that the egg requirement has been reached

| Year | Percentage above |
| ---: | ---: |
| 2014 | 3.97 |
| 2015 | 16.80 |
| 2016 | 0.81 |
| 2017 | 33.05 |
| 2018 | 6.43 |



Plot shows 50, 70 and $90 \%$ of the estimates (wide to narrow bars). Shaded areas represent 50, 70 and $90 \%$ of the estimated egg requirements (dark to light areas)

## River Dee SAC: Grade 1



## Summary Table

|  |  |  | Percentage chance meeting requirement |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Eggs required <br> $\left(\mathrm{m}^{2}\right)^{\mathrm{a}}$ | Area <br> $\left(\mathrm{m}^{2}\right)^{\mathrm{a}}$ | Total egg <br> requirement | 2014 | 2015 | 2016 | 2017 | 2018 | Overall | Grade |
| 3.05 | $9,261,200$ | $28,215,587$ | 91.86 | 82.07 | 91.29 | 93.76 | 89.64 | 89.72 | 1 |

${ }^{\mathrm{a}}$ Figures presented are median values

## 1. Converting Reported Catches to Numbers of Returning Salmon

Reported Catches (black $=$ retained, blue $=$ released $)$


Monthly flow data


Monthly stock estimates (out of season in black)


Annual estimated stock


Annual catch as a proportion of stock

2. Converting Numbers of Returning Salmon to Numbers of Spawning Females Ages of fish



## 3. Converting Number of Spawners to Number of Eggs

Egg contents of females


## Monthly number of eggs



Plot shows 50, 70 and $90 \%$ of the estimates (wide to narrow bars).

## Total annual egg numbers



Plot shows 50,70 and $90 \%$ of the estimates (wide to narrow bars).

## 4. Egg requirement

## Areas of salmon habitat in square meters

There is an estimated $10,214,141$ square meters of known salmon habitat in the River Dee SAC and a further 309,956 square meters where salmon may be present.

## Egg requirement


5. Percentage chance that the egg requirement has been reached

| Year | Percentage above |
| ---: | ---: |
| 2014 | 91.86 |
| 2015 | 82.07 |
| 2016 | 91.29 |
| 2017 | 93.76 |
| 2018 | 89.64 |



Plot shows 50, 70 and $90 \%$ of the estimates (wide to narrow bars). Shaded areas represent 50, 70 and $90 \%$ of the estimated egg requirements (dark to light areas)

## River Don: Grade 3



## Summary Table

|  |  |  | Percentage chance meeting requirement |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Eggs required <br> $\left(\mathrm{m}^{2}\right)^{\mathrm{a}}$ | Area <br> $\left(\mathrm{m}^{2}\right)^{\mathrm{a}}$ | Total egg <br> requirement ${ }^{\mathrm{a}}$ | 2014 | 2015 | 2016 | 2017 | 2018 | Overall | Grade |  |
| 2.32 | $4,112,800$ | $9,560,190$ | 65.5 | 53.68 | 51.6 | 42.95 | 46.01 | 51.95 | 3 |  |

${ }^{\text {a }}$ Figures presented are median values

## 1. Converting Reported Catches to Numbers of Returning Salmon

Reported Catches (black $=$ retained, blue $=$ released $)$


Monthly flow data


Monthly stock estimates (out of season in black)


Plot shows 50, 70 and $90 \%$ of the estimates (wide to narrow bars).

Annual estimated stock


Plot shows 50, 70 and $90 \%$ of the estimates (wide to narrow bars).

Annual catch as a proportion of stock

2. Converting Numbers of Returning Salmon to Numbers of Spawning Females Ages of fish


Monthly number of spawning females

3. Converting Number of Spawners to Number of Eggs

Egg contents of females


## Monthly number of eggs



Plot shows 50, 70 and $90 \%$ of the estimates (wide to narrow bars).

## Total annual egg numbers



Plot shows 50, 70 and $90 \%$ of the estimates (wide to narrow bars).

## 4. Egg requirement

## Areas of salmon habitat in square meters

There is an estimated $4,373,313$ square meters of known salmon habitat in the River Don and a further 300,299 square meters where salmon may be present.

## Egg requirement


5. Percentage chance that the egg requirement has been reached

| Year | Percentage above |
| ---: | ---: |
| 2014 | 65.50 |
| 2015 | 53.68 |
| 2016 | 51.60 |
| 2017 | 42.95 |
| 2018 | 46.01 |



Plot shows 50, 70 and $90 \%$ of the estimates (wide to narrow bars). Shaded areas represent 50, 70 and $90 \%$ of the estimated egg requirements (dark to light areas)

## River Ythan: Grade 3



## Summary Table

|  |  |  | Percentage chance meeting requirement |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Eggs required <br> $\left(\mathrm{m}^{2}\right)^{\mathrm{a}}$ | Area <br> $\left(\mathrm{m}^{2}\right)^{\mathrm{a}}$ | Total egg <br> requirement | 2014 | 2015 | 2016 | 2017 | 2018 | Overall | Grade |  |
| 2.45 | 585,100 | $1,430,731$ | 55.32 | 50.81 | 32.17 | 47.58 | 40.32 | 45.24 | 3 |  |

${ }^{\text {a }}$ Figures presented are median values

## 1. Converting Reported Catches to Numbers of Returning Salmon

Reported Catches (black $=$ retained, blue $=$ released $)$


Monthly flow data


Monthly stock estimates (out of season in black)


Plot shows 50, 70 and $90 \%$ of the estimates (wide to narrow bars).

Annual estimated stock


Annual catch as a proportion of stock

2. Converting Numbers of Returning Salmon to Numbers of Spawning Females Ages of fish


3. Converting Number of Spawners to Number of Eggs

Egg contents of females


## Monthly number of eggs



Total annual egg numbers


Plot shows 50,70 and $90 \%$ of the estimates (wide to narrow bars).

## 4. Egg requirement

## Areas of salmon habitat in square meters

There is an estimated 613,162 square meters of known salmon habitat in the River Ythan and a further 51,709 square meters where salmon may be present.

## Egg requirement


5. Percentage chance that the egg requirement has been reached

| Year | Percentage above |
| ---: | ---: |
| 2014 | 55.32 |
| 2015 | 50.81 |
| 2016 | 32.17 |
| 2017 | 47.58 |
| 2018 | 40.32 |



Plot shows 50, 70 and $90 \%$ of the estimates (wide to narrow bars). Shaded areas represent 50, 70 and $90 \%$ of the estimated egg requirements (dark to light areas)

## River Ugie: Grade 3



Detailed information on catches is not publicly available for this assessment area

Summary Table

|  |  |  | Percentage chance meeting requirement |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Eggs required <br> $\left(\mathrm{m}^{2}\right)^{\mathrm{a}}$ | Area <br> $\left(\mathrm{m}^{2}\right)^{\mathrm{a}}$ | Total egg <br> requirement $^{\mathrm{a}}$ | 2014 | 2015 | 2016 | 2017 | 2018 | Overall | Grade |
| 2.02 | 541,200 | $1,091,448$ | 28.81 | 57.94 | 69.97 | 37.51 | 39.76 | 46.8 | 3 |

[^4]
## 1. Converting Reported Catches to Numbers of Returning Salmon

Annual estimated stock

2. Converting Numbers of Returning Salmon to Numbers of Spawning Females Ages of fish


## 3. Converting Number of Spawners to Number of Eggs

Egg contents of females


Total annual egg numbers


Plot shows 50, 70 and $90 \%$ of the estimates (wide to narrow bars).

## 4. Egg requirement

## Areas of salmon habitat in square meters

There is an estimated 468,597 square meters of known salmon habitat in the River Ugie and a further 146,438 square meters where salmon may be present.

## Egg requirement


5. Percentage chance that the egg requirement has been reached

| Year | Percentage above |
| ---: | ---: |
| 2014 | 28.81 |
| 2015 | 57.94 |
| 2016 | 69.97 |
| 2017 | 37.51 |
| 2018 | 39.76 |



Plot shows 50, 70 and $90 \%$ of the estimates (wide to narrow bars). Shaded areas represent 50, 70 and $90 \%$ of the estimated egg requirements (dark to light areas)


[^0]:    ${ }^{\text {a }}$ Figures presented are median values

[^1]:    ${ }^{\text {a }}$ Figures presented are median values

[^2]:    ${ }^{\text {a }}$ Figures presented are median values

[^3]:    ${ }^{\text {a }}$ Figures presented are median values

[^4]:    ${ }^{\text {a }}$ Figures presented are median values

