## East Region

## River Tweed 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 |
| 2.74 | $16,229,600$ | $44,499,650$ | 95.02 | 96.99 | 97.11 | 96.13 | 90.14 | 95.08 | 1 |
| a Figun |  |  |  |  |  |  |  |  |  |

[^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


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 $18,345,025$ square meters of known salmon habitat in the River Tweed SAC and a further 97,730 square meters where salmon may be present.

## Egg requirement


5. Percentage chance that the egg requirement has been reached

| Year | Percentage above |
| ---: | ---: |
| 2014 | 95.02 |
| 2015 | 96.99 |
| 2016 | 97.11 |
| 2017 | 96.13 |
| 2018 | 90.14 |



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 Tyne: 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 |
| 1.96 | 356,800 | 700,240 | 0.09 | 0 | 0 | 1.52 | 0 | 0.32 | 3 |

[^1]
## 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


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



## 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 356,216 square meters of known salmon habitat in the River Tyne and a further 49,277 square meters where salmon may be present.

## Egg requirement


5. Percentage chance that the egg requirement has been reached

| Year | Percentage above |
| :---: | ---: |
| 2014 | 0.09 |
| 2015 | - |
| 2016 | - |
| 2017 | 1.52 |
| 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)

## River Almond: 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 |  |
| 1.89 | 508,600 | 960,320 | 2.61 | 17.2 | 6.46 | 0 | 0 | 5.25 | 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)


Annual estimated stock


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


## 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 479,859 square meters of known salmon habitat in the River Almond and a further 98,065 square meters where salmon may be present.

## Egg requirement


5. Percentage chance that the egg requirement has been reached

| Year | Percentage above |
| :---: | ---: |
| 2014 | 2.61 |
| 2015 | 17.20 |
| 2016 | 6.46 |
| 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)

## River Avon: 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 |
| 1.67 | 511,500 | 853,113 | 0.21 | 0.22 | 0 | 2.6 | 1.23 | 0.85 | 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)


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



## 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 357,966 square meters of known salmon habitat in the River Avon and a further 223,310 square meters where salmon may be present.

## Egg requirement


5. Percentage chance that the egg requirement has been reached

| Year | Percentage above |
| ---: | ---: |
| 2014 | 0.21 |
| 2015 | 0.22 |
| 2016 | - |
| 2017 | 2.60 |
| 2018 | 1.23 |



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 Carron (Grangemouth): 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 | 2014 | 2015 | 2016 | 2017 | 2018 | Overall | Grade |  |
| 1.76 | 422,900 | 745,190 | 30.48 | 67.03 | 42.8 | 49.14 | 6.49 | 39.19 | 3 |  |

[^2]
## 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 344,412 square meters of known salmon habitat in the River Carron (Grangemouth) and a further 136,130 square meters where salmon may be present.

## Egg requirement


5. Percentage chance that the egg requirement has been reached

| Year | Percentage above |
| ---: | ---: |
| 2014 | 30.48 |
| 2015 | 67.03 |
| 2016 | 42.80 |
| 2017 | 49.14 |
| 2018 | 6.49 |



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 Teith 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 | 2014 | 2015 | 2016 | 2017 | 2018 | Overall | Grade |  |
| 1.99 | $2,049,300$ | $4,069,038$ | 85.54 | 91.41 | 92.42 | 91.08 | 80.32 | 88.15 | 2 |  |

${ }^{\text {a }}$ Figures presented are median values
Grade 2 due to the presence of shared areas with River Forth

## 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 $2,111,034$ square meters of known salmon habitat in the River Teith SAC and a further 217,737 square meters where salmon may be present.

## Egg requirement


5. Percentage chance that the egg requirement has been reached

| Year | Percentage above |
| ---: | ---: |
| 2014 | 85.54 |
| 2015 | 91.41 |
| 2016 | 92.42 |
| 2017 | 91.08 |
| 2018 | 80.32 |



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)

Grade 2 due to the presence of shared areas with River Forth

## River Forth [non-SAC]: Grade 2



NOTE: assessment carried out using information from whole catchment but grading applies only to non-SAC area (shaded black). SAC (shaded grey) graded separately

## 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 |
| 1.93 | $4,720,900$ | $9,118,192$ | 65.93 | 80.74 | 83.86 | 77.98 | 57.57 | 73.22 | 2 |

${ }^{\text {a }}$ 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


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 $4,533,173$ square meters of known salmon habitat in the River Forth and a further 831,499 square meters where salmon may be present.

## Egg requirement


5. Percentage chance that the egg requirement has been reached

| Year | Percentage above |
| ---: | ---: |
| 2014 | 65.93 |
| 2015 | 80.74 |
| 2016 | 83.86 |
| 2017 | 77.98 |
| 2018 | 57.57 |



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)

## River Devon: 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 |  |
| 1.92 | 409,300 | 783,962 | 0.64 | 0 | 0.12 | 0.48 | 0.85 | 0.42 | 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)


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 390,840 square meters of known salmon habitat in the River Devon and a further 74,264 square meters where salmon may be present.

## Egg requirement


5. Percentage chance that the egg requirement has been reached

| Year | Percentage above |
| ---: | ---: |
| 2014 | 0.64 |
| 2015 | - |
| 2016 | 0.12 |
| 2017 | 0.48 |
| 2018 | 0.85 |



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 Leven (Fife): 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 |
| 1.63 | 374,900 | 610,208 | 4.67 | 36.34 | 55.27 | 35.07 | 25.47 | 31.36 | 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)


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



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 248,170 square meters of known salmon habitat in the River Leven (Fife) and a further 177,869 square meters where salmon may be present.

## Egg requirement


5. Percentage chance that the egg requirement has been reached

| Year | Percentage above |
| ---: | ---: |
| 2014 | 4.67 |
| 2015 | 36.34 |
| 2016 | 55.27 |
| 2017 | 35.07 |
| 2018 | 25.47 |



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 Eden: 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 |  |
| 2.61 | 308,500 | 806,434 | 32.32 | 26.88 | 40.9 | 40.76 | 8.42 | 29.86 | 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



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 340,702 square meters of known salmon habitat in the River Eden and a further 9,915 square meters where salmon may be present.

## Egg requirement


5. Percentage chance that the egg requirement has been reached

| Year | Percentage above |
| ---: | ---: |
| 2014 | 32.32 |
| 2015 | 26.88 |
| 2016 | 40.90 |
| 2017 | 40.76 |
| 2018 | 8.42 |



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 Earn: 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 |  |
| 2.6 | $2,707,300$ | $7,047,532$ | 49.56 | 67.84 | 67.38 | 67.67 | 37.63 | 58.02 | 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)


Annual estimated stock


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 $2,985,147$ square meters of known salmon habitat in the River Earn and a further 91,324 square meters where salmon may be present.

## Egg requirement


5. Percentage chance that the egg requirement has been reached

| Year | Percentage above |
| ---: | ---: |
| 2014 | 49.56 |
| 2015 | 67.84 |
| 2016 | 67.38 |
| 2017 | 67.67 |
| 2018 | 37.63 |



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 Tay 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 $^{\mathrm{a}}$ | 2014 | 2015 | 2016 | 2017 | 2018 | Overall | Grade |
| 2.62 | $15,451,100$ | $40,448,258$ | 90.08 | 93.81 | 93.54 | 90.14 | 84.97 | 90.51 | 1 |

[^4]
## 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 $17,272,512$ square meters of known salmon habitat in the River Tay SAC and a further 285,556 square meters where salmon may be present.

## Egg requirement


5. Percentage chance that the egg requirement has been reached

| Year | Percentage above |
| ---: | ---: |
| 2014 | 90.08 |
| 2015 | 93.81 |
| 2016 | 93.54 |
| 2017 | 90.14 |
| 2018 | 84.97 |



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

