

Brood Year 2021 Mark Characteristic Report



Prepared for:
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Seattle Public Utilities
Seattle, WA

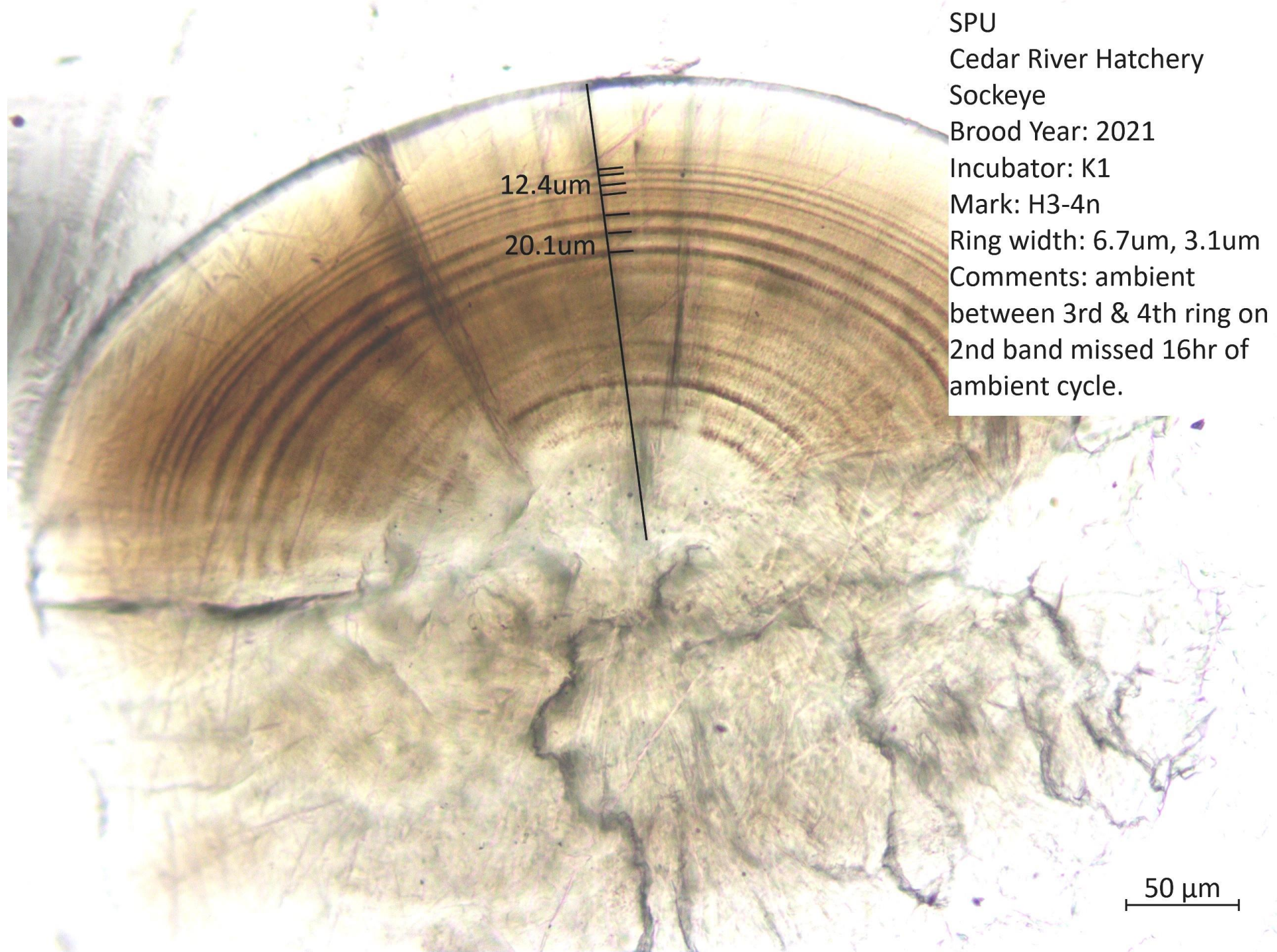
Prepared by:
Sagilith
Michael Wunderlich

May 2022

- Agency: Seattle Public Utilities
- Facility: Cedar River Hatchery
- Species: Sockeye
- Brood Year: 2021
- Number of fish released by mark pattern:
 - 914,399 early release (H3-4n)
 - 917,895 middle release (H3/1)
 - 400,699 late release (H4n-3)
- Ambient water temp: 44F-46F (6.7C-7.8C)
- Marking system: Chill to 39F (3.9C)

[illegible][illegible][illegible]

H3-4n



SPU

Cedar River Hatchery

Sockeye

Brood Year: 2021

Incubator: K1

Mark: H3-4n

Ring width: 6.7um, 3.1um

Comments: ambient
between 3rd & 4th ring on
2nd band missed 16hr of
ambient cycle.

50 μ m

SPU

Cedar River Hatchery

Sockeye

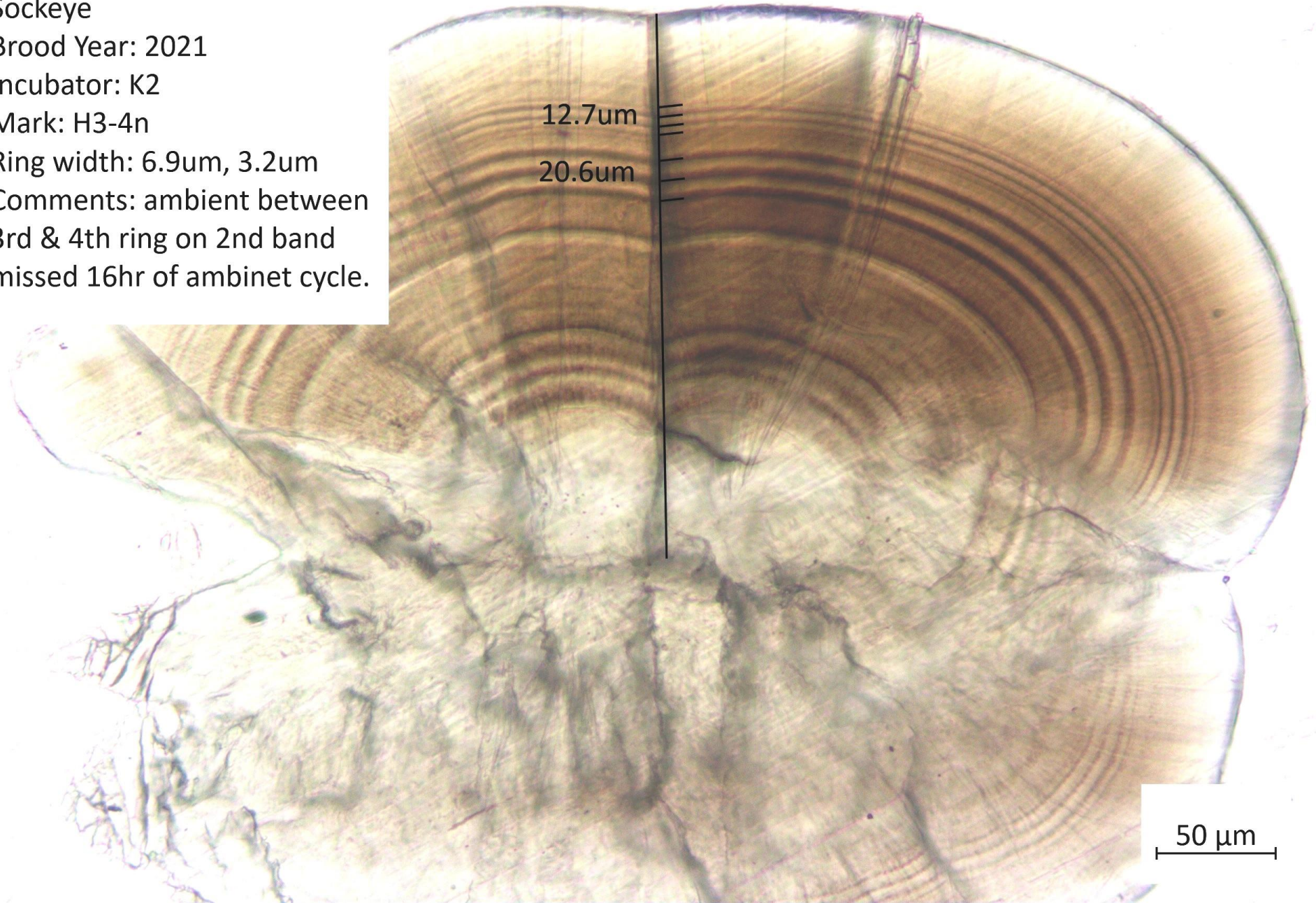
Brood Year: 2021

Incubator: K2

Mark: H3-4n

Ring width: 6.9 μ m, 3.2 μ m

Comments: ambient between
3rd & 4th ring on 2nd band
missed 16hr of ambient cycle.



SPU

Cedar River Hatchery

Sockeye

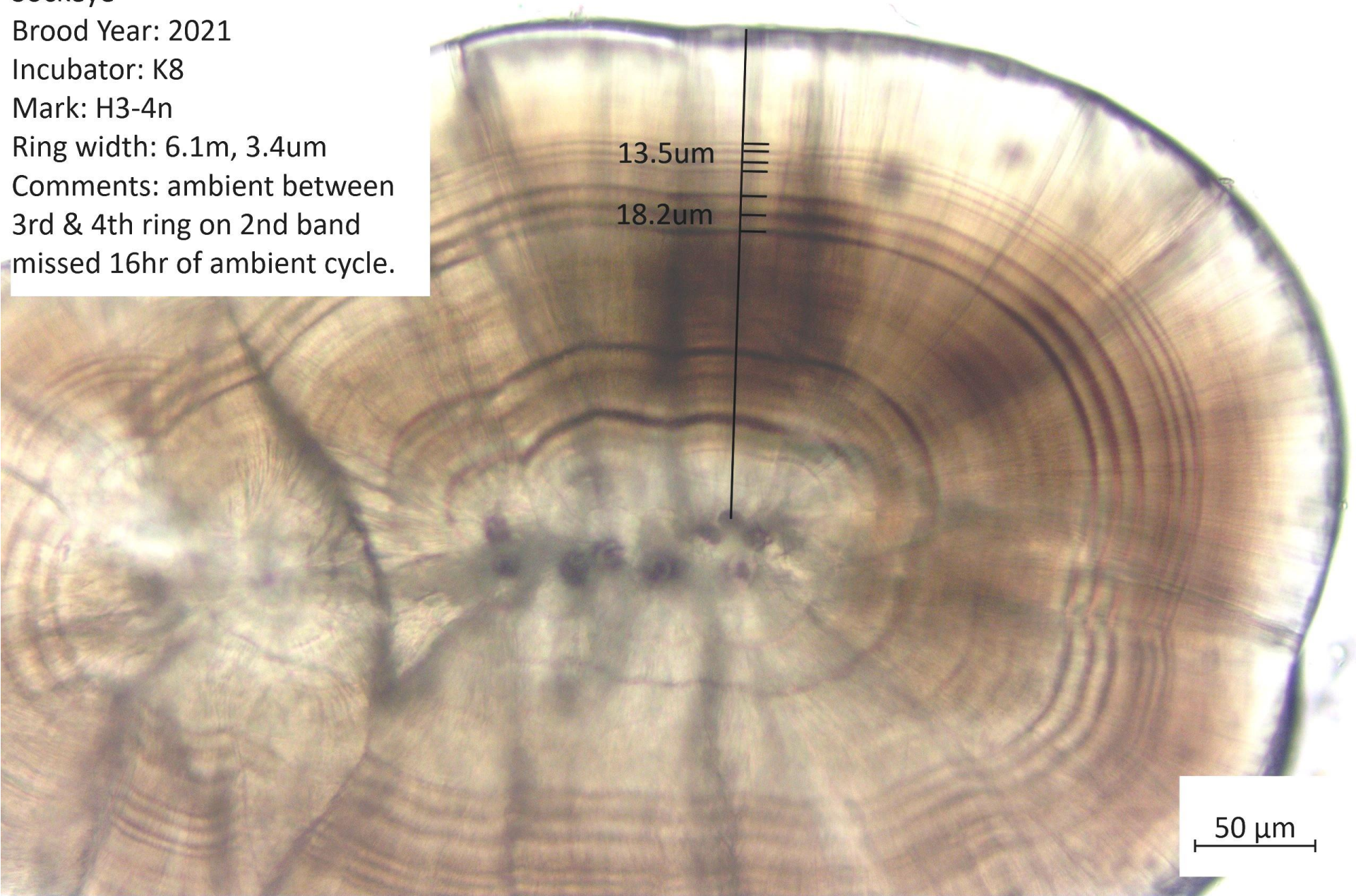
Brood Year: 2021

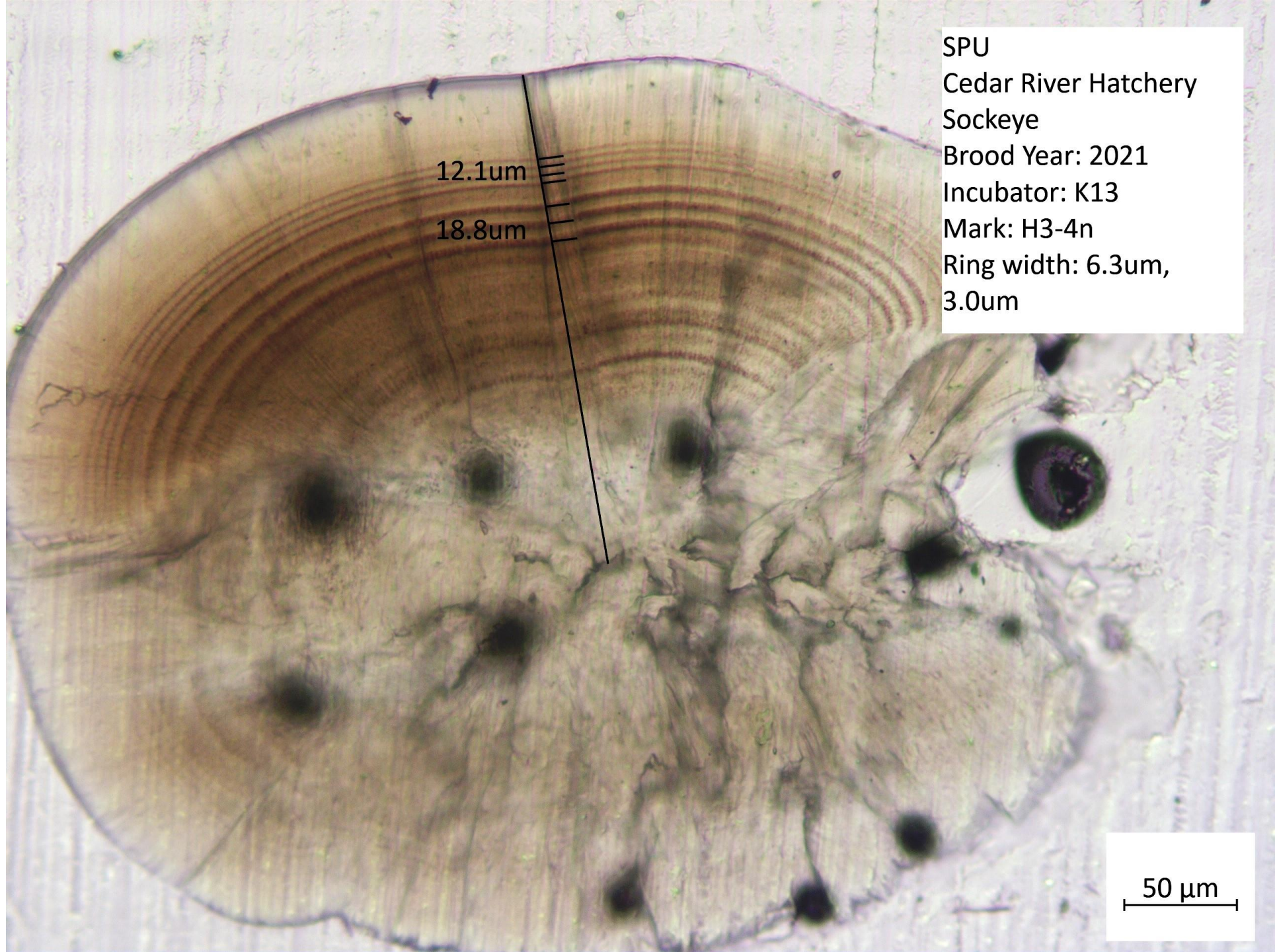
Incubator: K8

Mark: H3-4n

Ring width: 6.1m, 3.4um

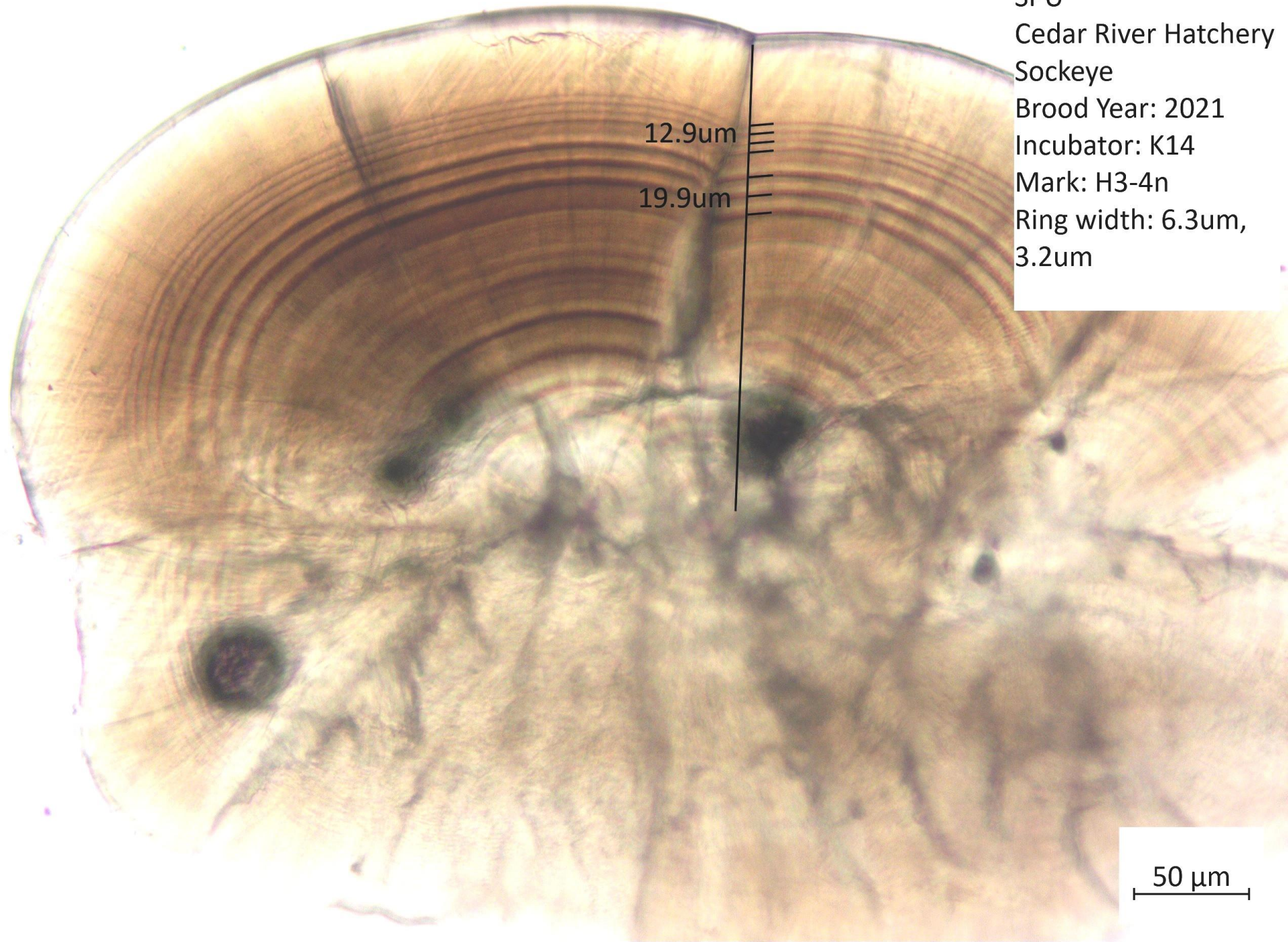
Comments: ambient between
3rd & 4th ring on 2nd band
missed 16hr of ambient cycle.





SPU
Cedar River Hatchery
Sockeye
Brood Year: 2021
Incubator: K13
Mark: H3-4n
Ring width: 6.3um,
3.0um

50 μ m



SPU
Cedar River Hatchery
Sockeye
Brood Year: 2021
Incubator: K14
Mark: H3-4n
Ring width: 6.3um,
3.2um

50 μ m

SPU

Cedar River Hatchery

Sockeye

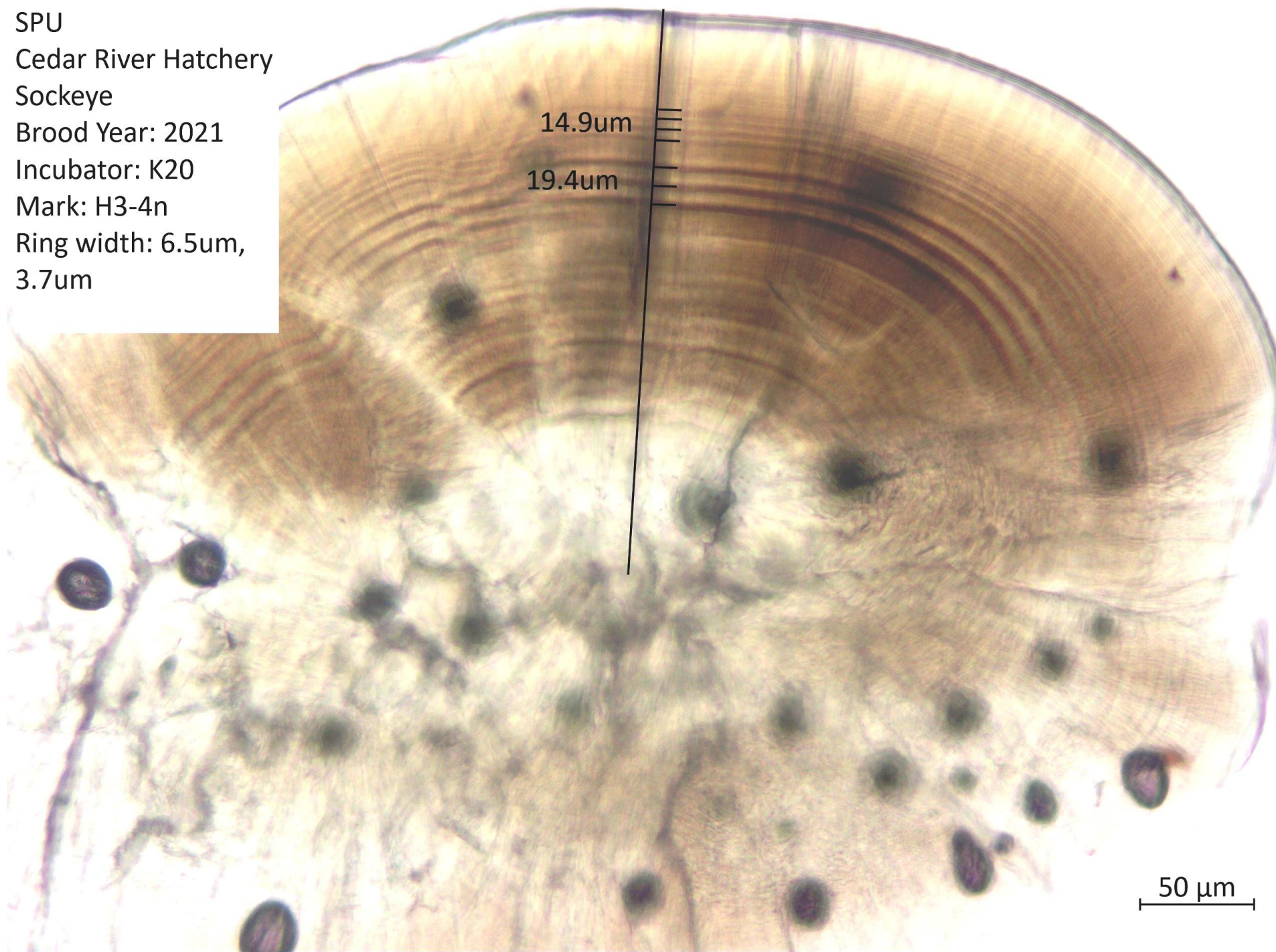
Brood Year: 2021

Incubator: K20

Mark: H3-4n

Ring width: 6.5um,

3.7um



H3/1

SPU

Cedar River Hatchery

Sockeye

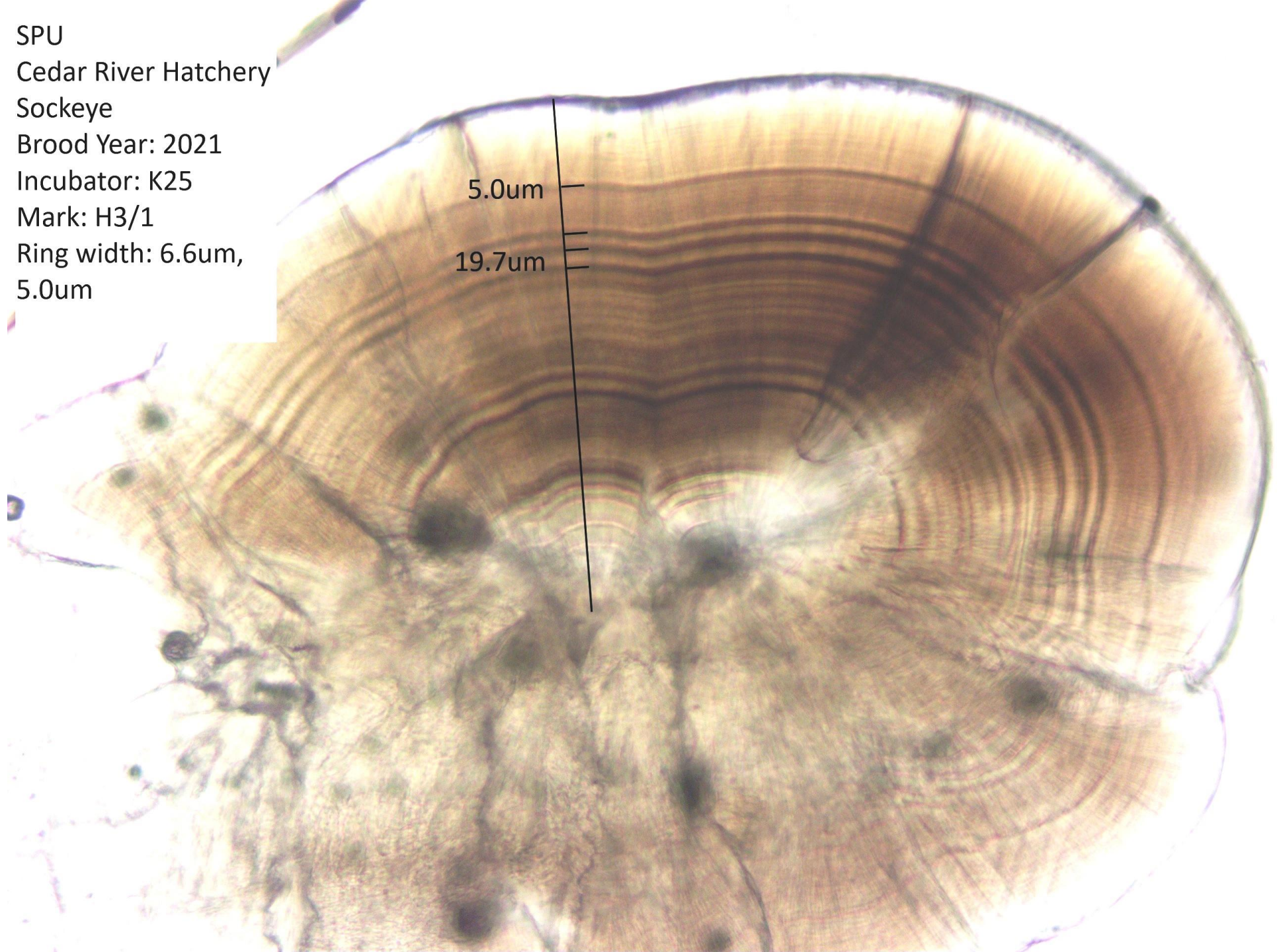
Brood Year: 2021

Incubator: K25

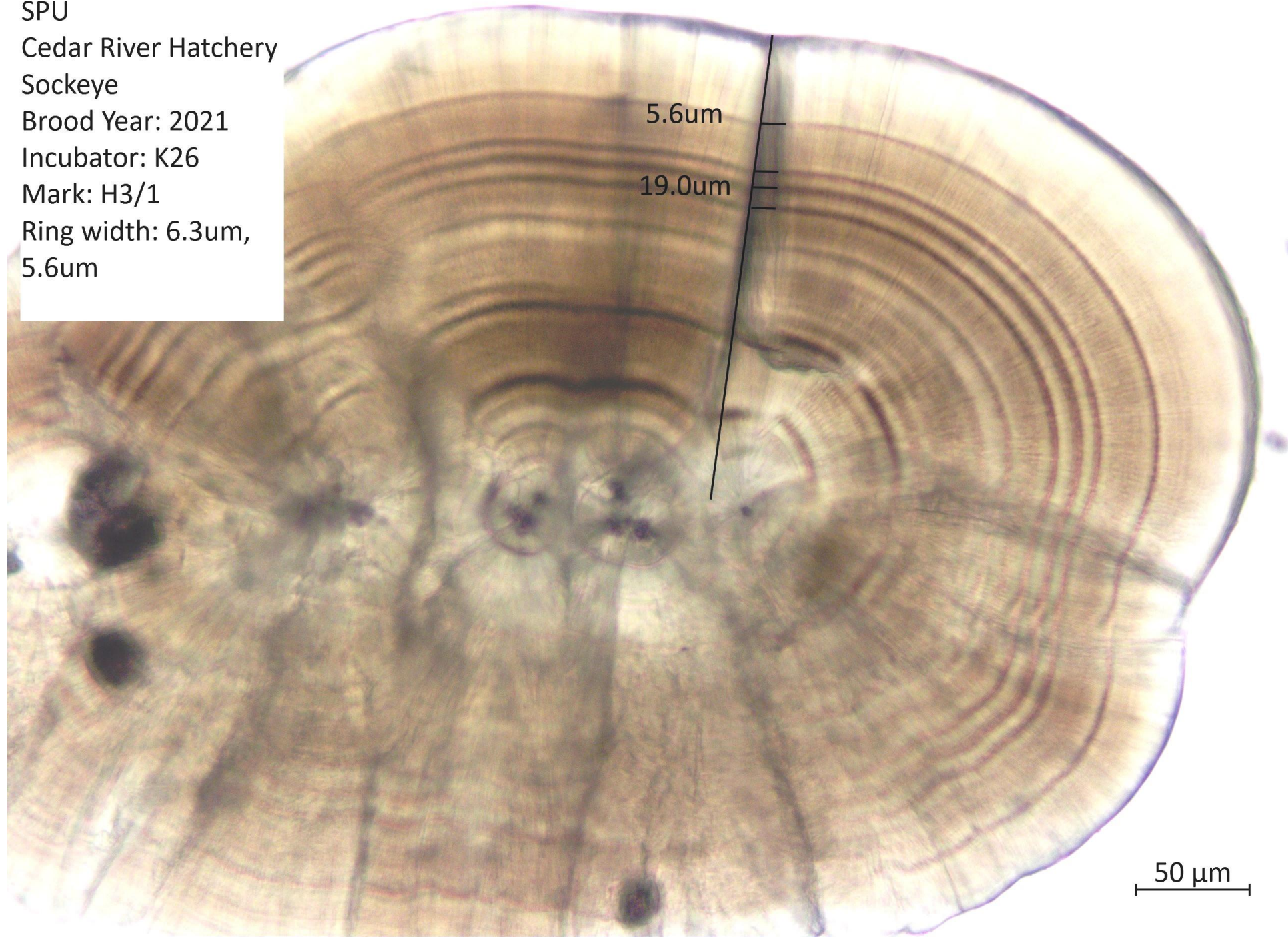
Mark: H3/1

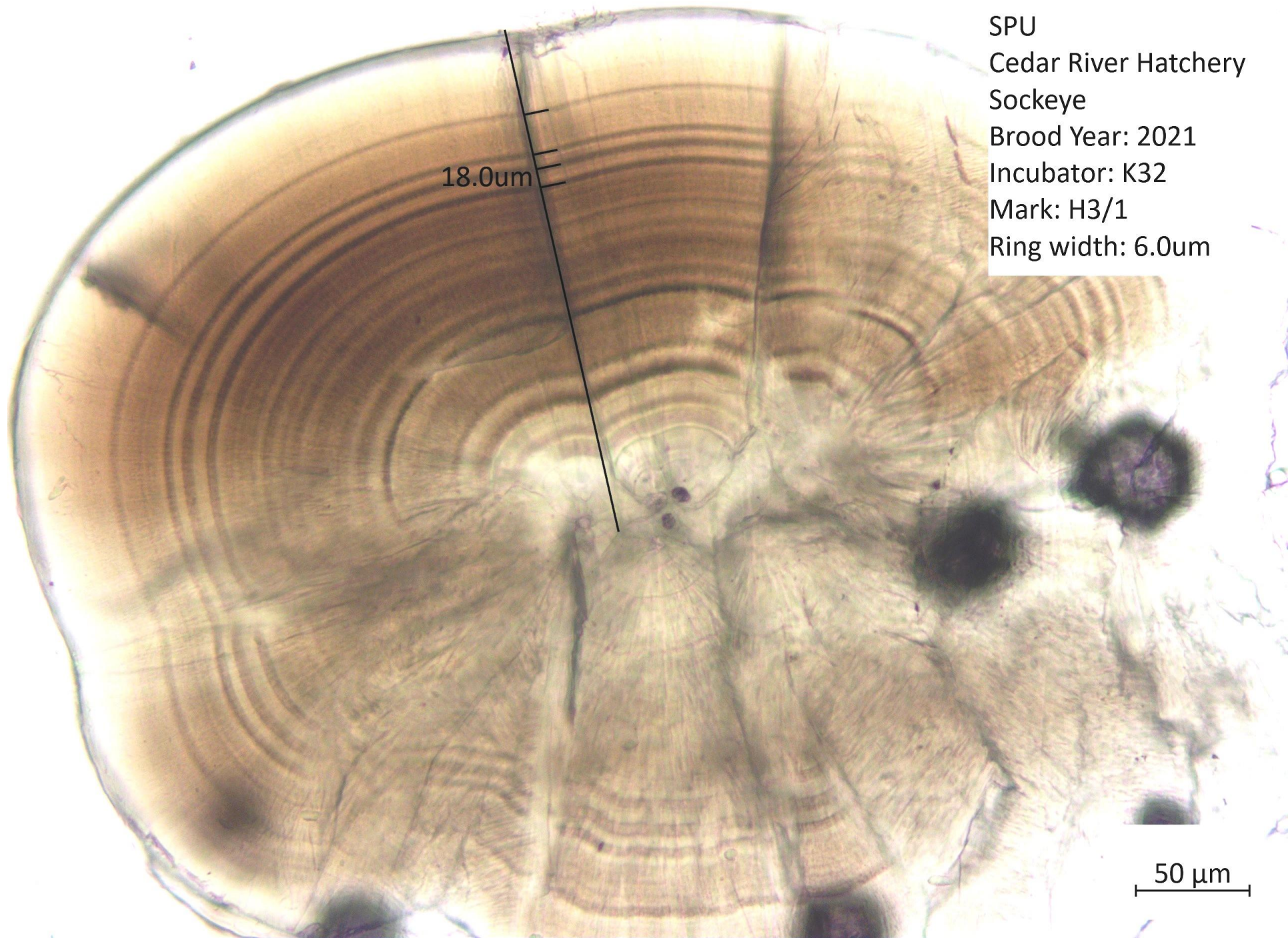
Ring width: 6.6um,

5.0um



SPU
Cedar River Hatchery
Sockeye
Brood Year: 2021
Incubator: K26
Mark: H3/1
Ring width: 6.3um,
5.6um





SPU
Cedar River Hatchery
Sockeye
Brood Year: 2021
Incubator: K32
Mark: H3/1
Ring width: 6.0um

50 μ m

SPU

Cedar River Hatchery

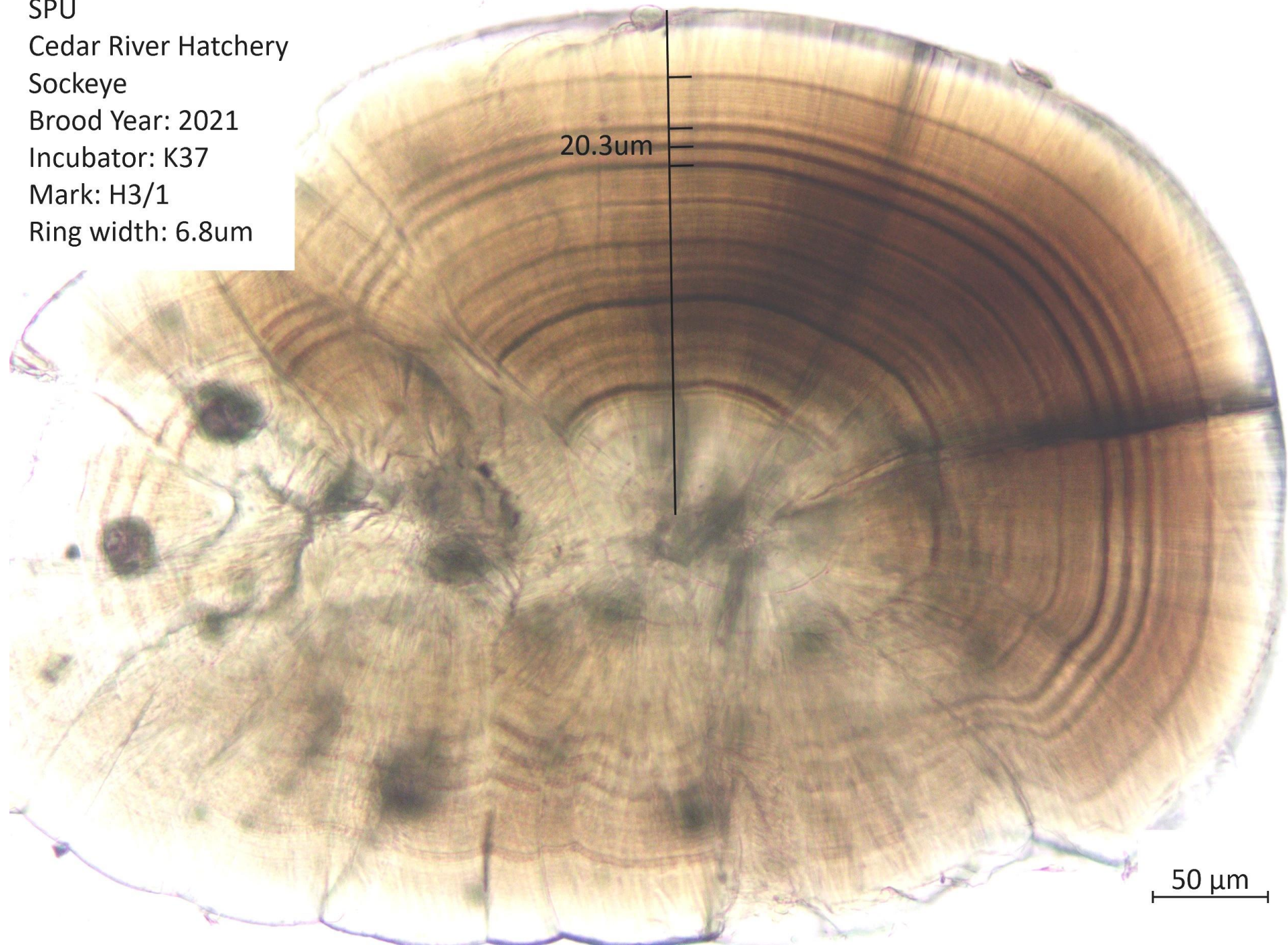
Sockeye

Brood Year: 2021

Incubator: K37

Mark: H3/1

Ring width: 6.8um



50 μ m

SPU

Cedar River Hatchery

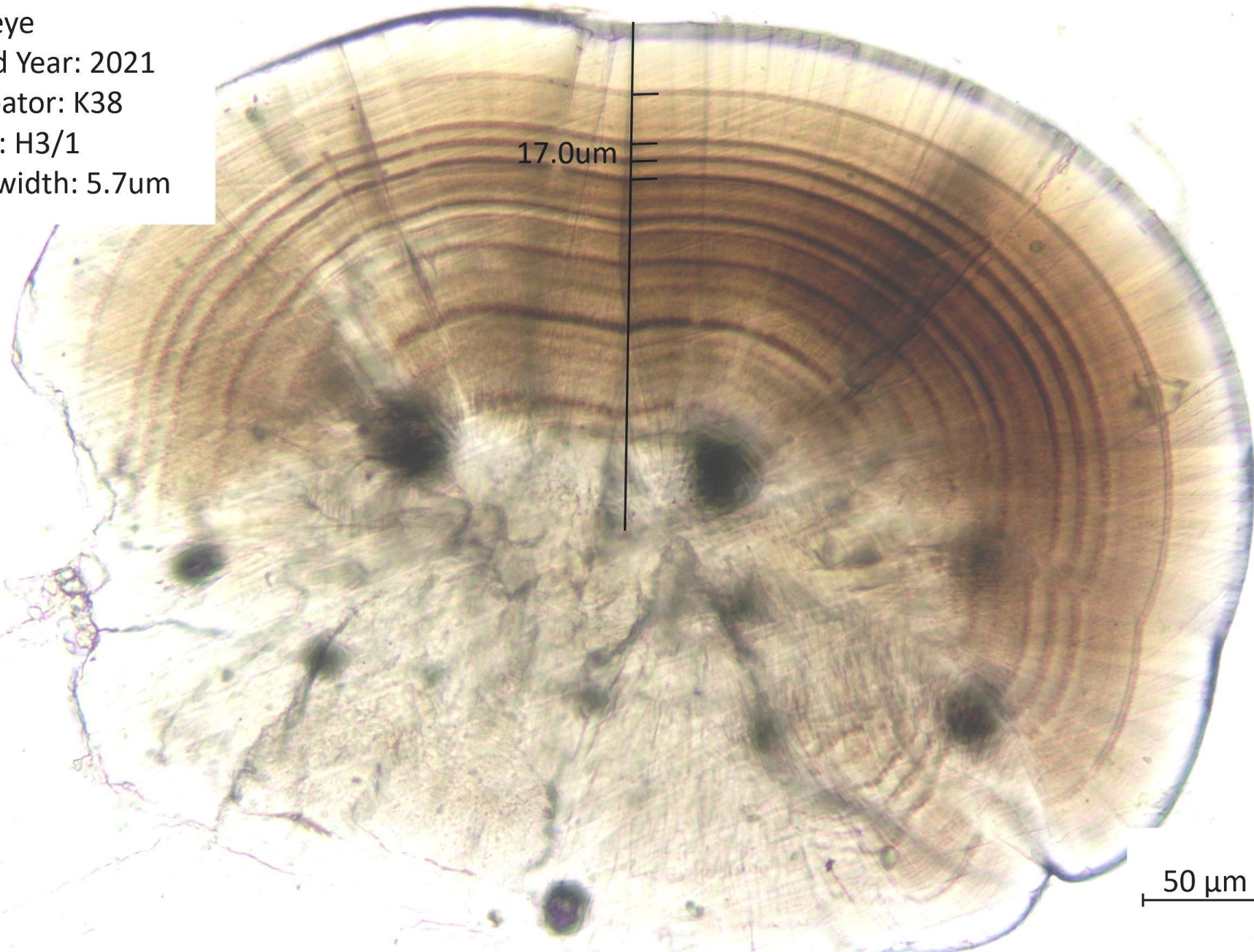
Sockeye

Brood Year: 2021

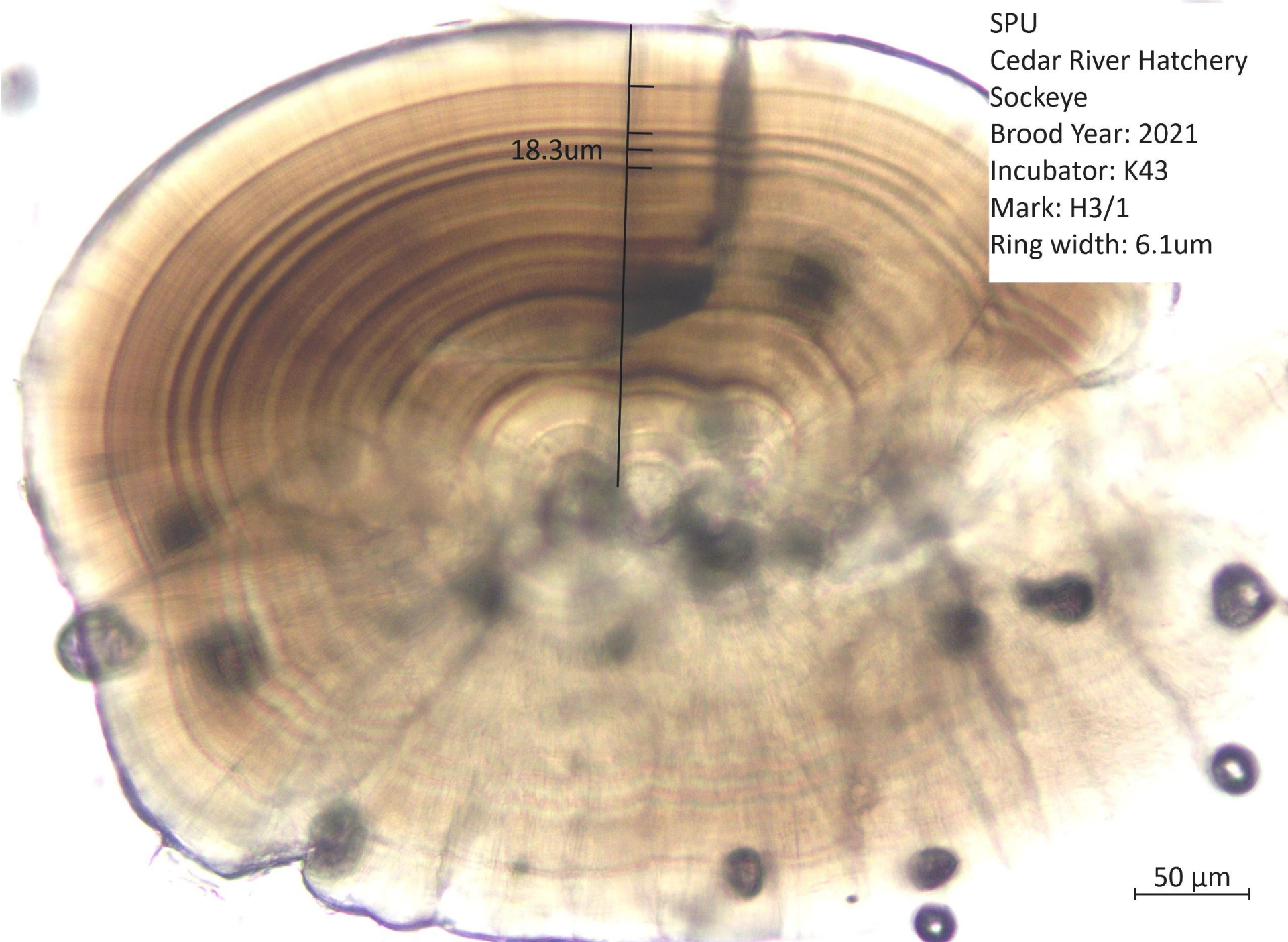
Incubator: K38

Mark: H3/1

Ring width: 5.7um



50 μm



SPU

Cedar River Hatchery

Sockeye

Brood Year: 2021

Incubator: K43

Mark: H3/1

Ring width: 6.1um

18.3um

50 μm

SPU

Cedar River Hatchery

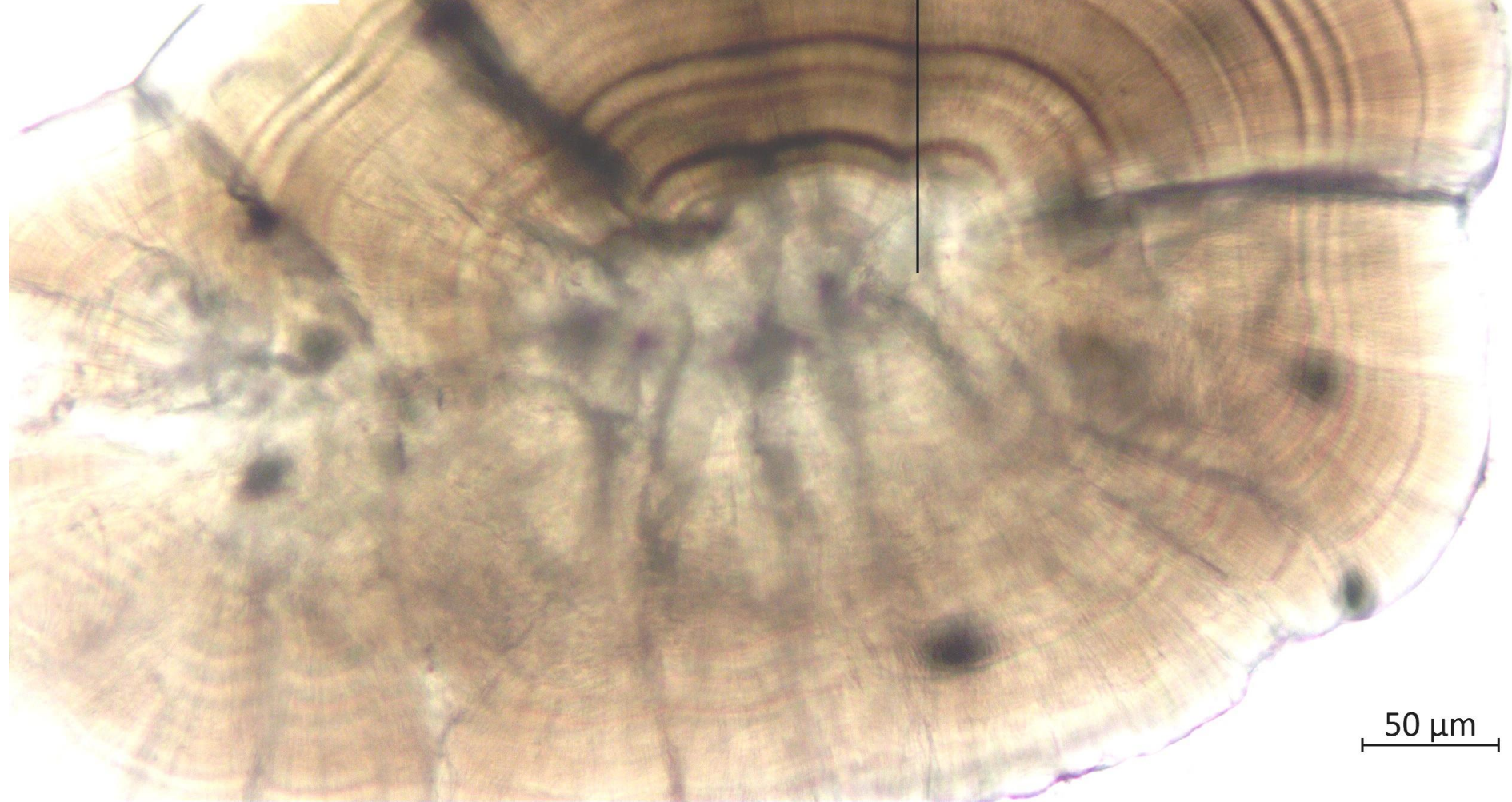
Sockeye

Brood Year: 2021

Incubator: K44

Mark: H3/1

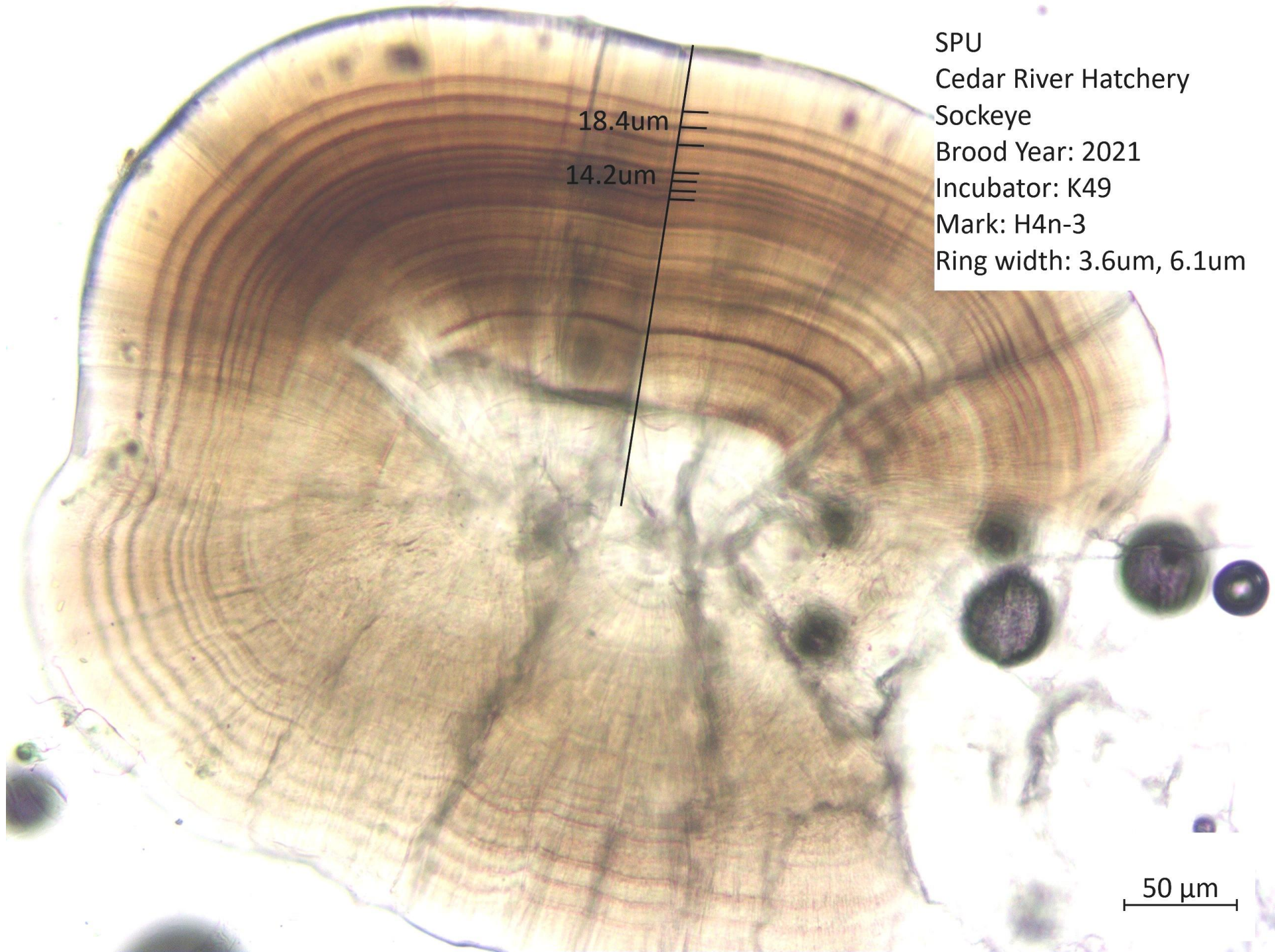
Ring width: 6.4um



19.2um

50 μm

H4n-3



SPU

Cedar River Hatchery

Sockeye

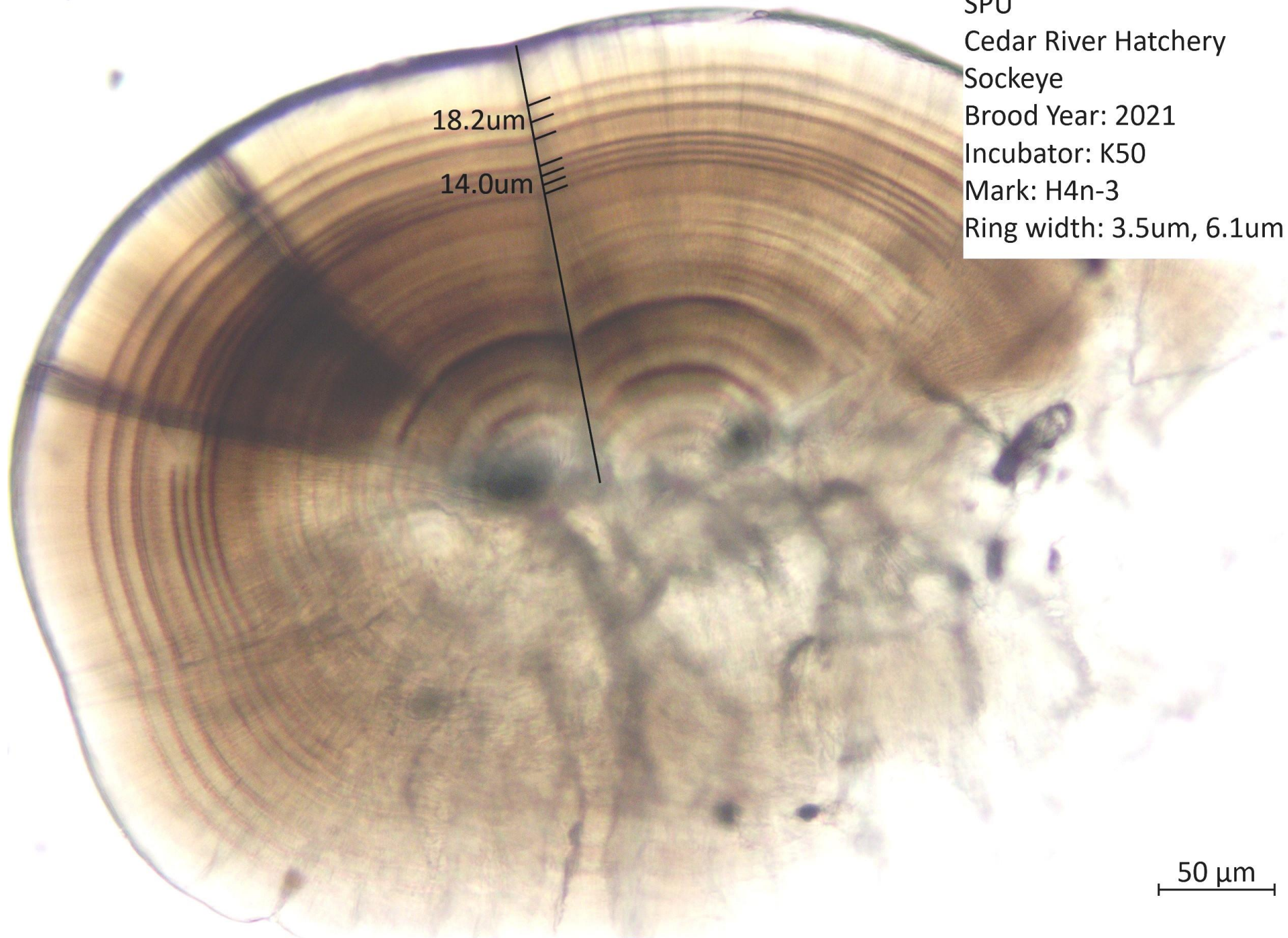
Brood Year: 2021

Incubator: K49

Mark: H4n-3

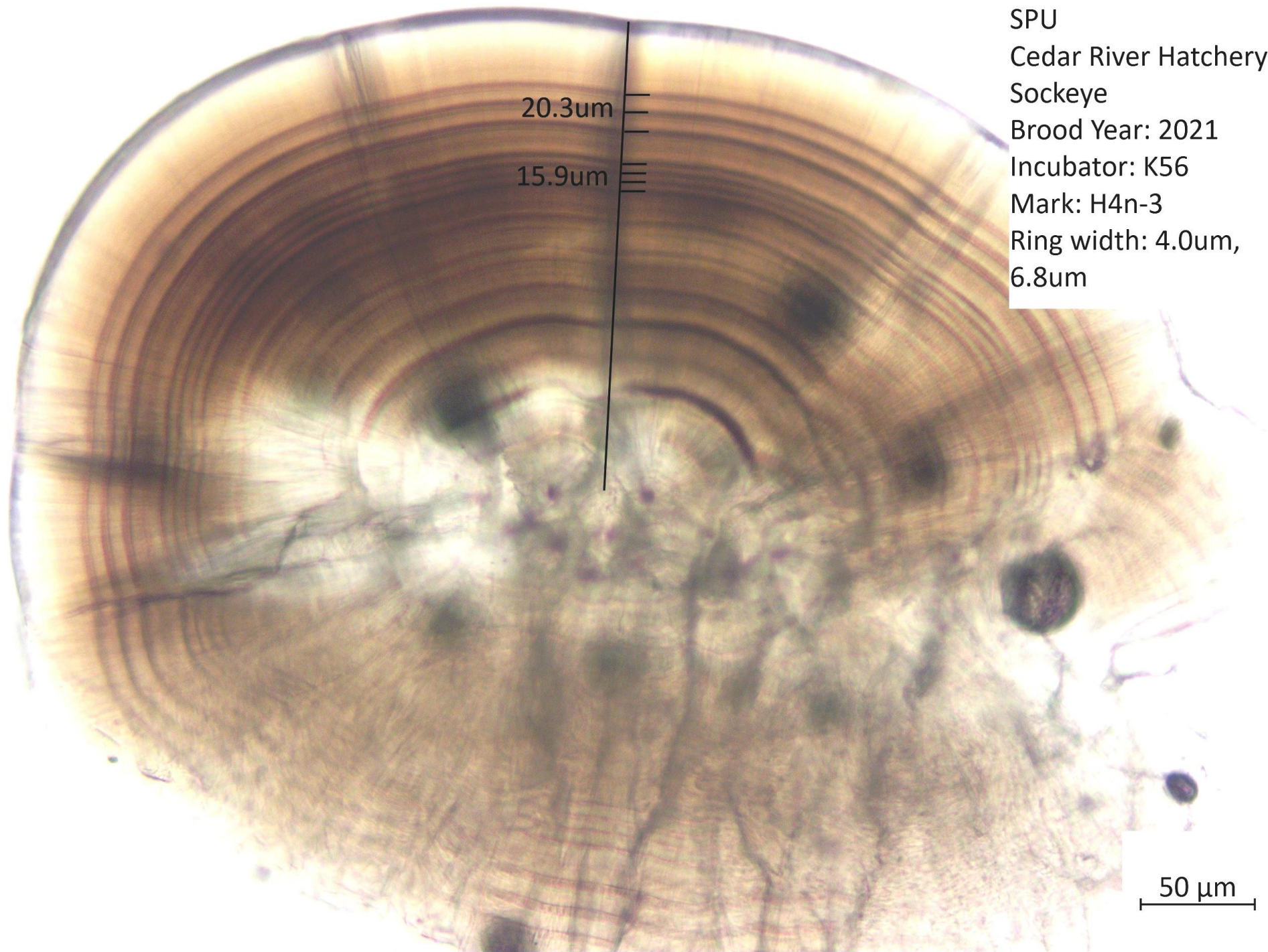
Ring width: 3.6um, 6.1um

50 μ m



SPU
Cedar River Hatchery
Sockeye
Brood Year: 2021
Incubator: K50
Mark: H4n-3
Ring width: 3.5um, 6.1um

50 μm



SPU

Cedar River Hatchery

Sockeye

Brood Year: 2021

Incubator: K56

Mark: H4n-3

Ring width: 4.0um,
6.8um

50 μm

SPU

Cedar River Hatchery

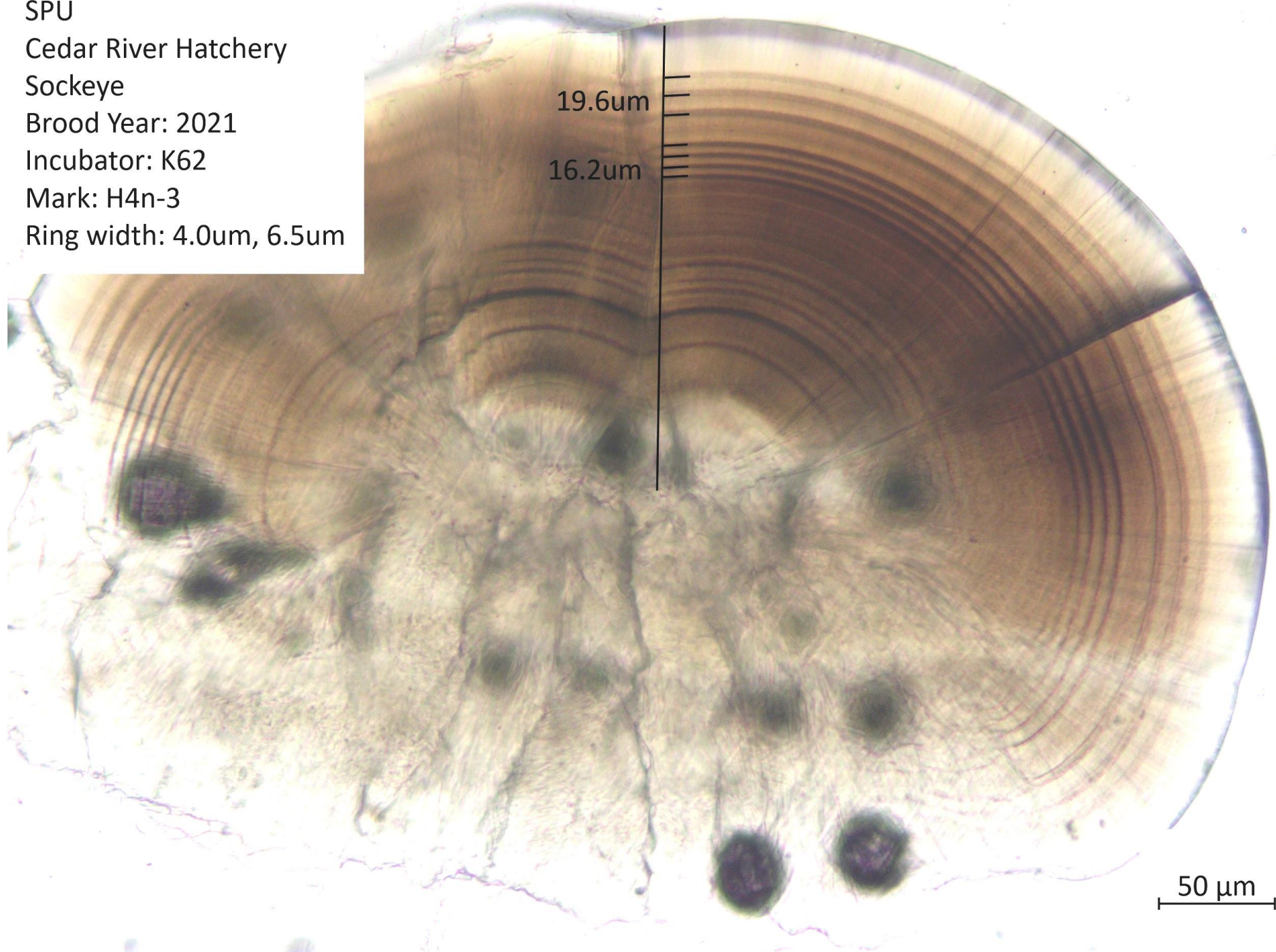
Sockeye

Brood Year: 2021

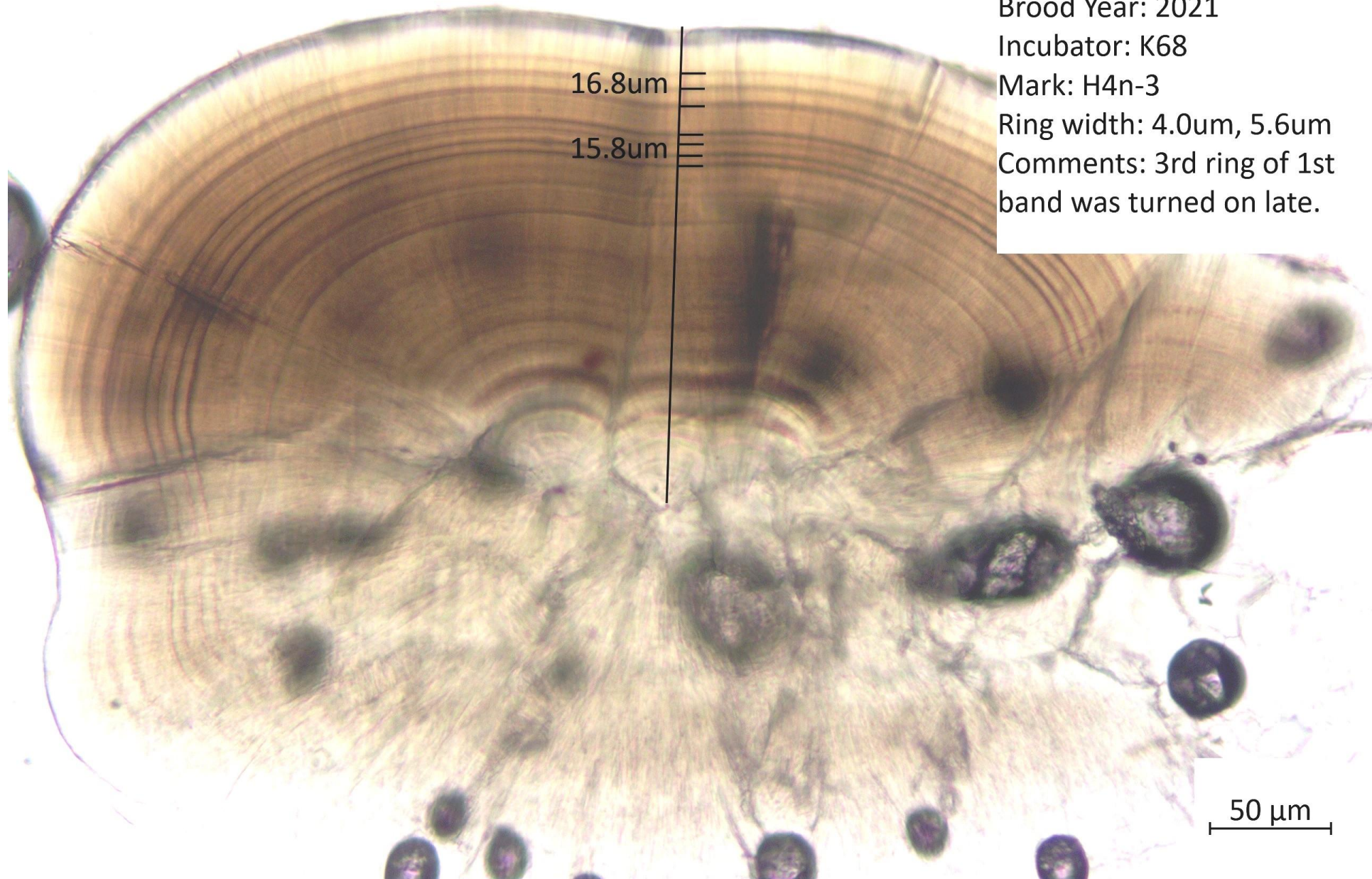
Incubator: K62

Mark: H4n-3

Ring width: 4.0um, 6.5um



SPU
Cedar River Hatchery
Sockeye
Brood Year: 2021
Incubator: K68
Mark: H4n-3
Ring width: 4.0um, 5.6um
Comments: 3rd ring of 1st
band was turned on late.



SPU

Cedar River Hatchery

Sockeye

Brood Year: 2021

Incubator: K74

Mark: H4n-3

Ring width: 3.3um, 5.0um

