## High MR Species

### *Electrona antarctica*

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| **Distribution** | * Antarctic (10) * South of AFP (4, 10)   + ASW, WW & CDW (4) * Biomass increases to south (5, 8) |
| **Lifecycle/reproduction** | * 3 year lifespan (10) * Completes lifecycle in Southern Ocean (5, 6, 10) * Females larger and occur deeper (4, 6, 10) |
| **Depth** | * Broad and deep distribution   + 0-1000m (4, 6, 7, 8, 10) |
| **Migration** | * Evidence of DVM (8, 11) |
| **Temperature** | * 3C max (10) * Dominant in cooler waters (5) |
| **Swimbladder** | * Residual swim bladder (Marshall, 1960) * Use wax esters for buoyancy (10) |
| **Diet** | * Broad, mostly euphausiids (4, 7, 10) |
| **Schooling** | * None recorded |

### *Gymnoscopelus braueri*

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| **Distribution** | * Antarctic (2, 10) * Georgia Banks, Mid Scotia Sea and South Scotia Sea (2)   + CDW, WW & ASW (2) * Biomass increases to south (5, 8) |
| **Lifecycle/reproduction** | * Longer lifespan   + 4+ years (2) * Completes lifecycle in Southern Ocean (5, 6) * Females bigger than males (6) |
| **Depth** | * Broad and deep distribution   + 0-1000m (2, 6, 8) |
| **Migration** | * Evidence of DVM (2, 8, 11) * May undertake ontogenetic migrations (2) |
| **Temperature** | * 5-6C max (10) * Dominant in cooler waters (5) |
| **Swimbladder** | * Residual swim bladder (Marshall, 1960) |
| **Diet** | * Broad, mostly copepods and euphausiids (2, 7, 10) |
| **Schooling** | * None recorded |

### *Krefftichthys anderssoni*

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| **Distribution** | * South of AFP (1, 10)   + CDW (1) * Similar biomass across Southern Ocean (8) |
| **Lifecycle/reproduction** | * 3 year lifecycle (1) * Completes lifecycle in Southern Ocean (1, 5, 6) * No sex size difference (6) |
| **Depth** | * Broad distribution   + 0-1000m (1, 6, 8) |
| **Migration** | * Evidence of DVM (1, 6, 8, 11) |
| **Temperature** | * 2.6-5.6 max (10) |
| **Swimbladder** | * Well-developed swim bladder (Marshall, 1960) |
| **Diet** | * Diet of copepods and euphausiids (1, 10) |
| **Schooling** | * Forms schools (1, 12) |

### *Common characteristics*

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| **Distribution** | * More southern |
| **Lifecycle/reproduction** | * Completes lifecycle in SO/SS |
| **Depth** | * Broad distribution (0-1000m) |
| **Migration** | * Evidence of DVM |
| **Temperature** | * Cooler waters |
| **Swimbladder** | * N/A |
| **Diet** | * N/A |
| **Schooling** | * N/A |

## Low MR Species

### *Protomyctophum bolini*

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| **Distribution** | * Throughout Southern Ocean, but mostly in the north (3, 5) |
| **Lifecycle/reproduction** | * 2 year lifespan (3) * Adults may migrate in (5, 6)   + Recruitment only in north (3) * No sex size difference (6) |
| **Depth** | * More restricted depth distribution.   + To 1000m (6, 8) but mostly 200-400m (3, 5, 7) |
| **Migration** | * Possible DVM (3, 6) |
| **Temperature** | * 1.5C min? (5) |
| **Swimbladder** | * Well-developed swim bladder (Marshall, 1960) |
| **Diet** | * Dominated by copepods (3, 7, 10) |
| **Schooling** | * None recorded |

### *Electrona carlsbergi*

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| **Distribution** | * Southern Temperate (10) * More northern distribution (4, 5, 8, 10).   + North of APF (4)   + ASW, WW, CDW (4) |
| **Lifecycle/reproduction** | * Adults migrate in (4, 5, 6) * Females larger than males (10) |
| **Depth** | * Mostly upper 400m (4, 5, 9) though sometimes down to 1000m (6, 8) |
| **Migration** | * DVM summer (9) |
| **Temperature** | * Associated with warm water eddies (5) |
| **Swimbladder** | * Well-developed swim bladder (Marshall, 1960) |
| **Diet** | * Dominated by copepods (4, 10) |
| **Schooling** | * Forms schools (4, 12) |

### *Gymnoscopelus nicholsi*

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| **Distribution** | * Antarctic (2, 10) * More common in the north (5) |
| **Lifecycle/reproduction** | * 4 year lifespan (2) * Adults may migrate in (2, 10) |
| **Depth** | * Mostly upper 700m (2, 7, 10) though sometimes down to 1000m (6, 8) * May become benthopelagic (2, 10) |
| **Migration** | * No record |
| **Temperature** | * No record |
| **Swimbladder** | * Residual swim bladder (Marshall, 1960) |
| **Diet** | * Copepods and euphausiids (2, 7, 10) |
| **Schooling** | * No record |

### *Common characteristics*

|  |  |
| --- | --- |
| **Distribution** | * More northern |
| **Lifecycle/reproduction** | * Adults migrate in |
| **Depth** | * More restricted |
| **Migration** | * Less evidence of DVM |
| **Temperature** | * Warmer water |
| **Swimbladder** | * N/A |
| **Diet** | * Copepod dominated |
| **Schooling** | * N/A |

## References

|  |  |
| --- | --- |
| 1 | Lourenco et al. 2017 |
| 2 | Saunders et al. 2015a |
| 3 | Saunders et al. 2015b |
| 4 | Saunders et al. 2014 |
| 5 | Collins et al. 2012 |
| 6 | Collins et al. 2008 |
| 7 | Pusch et al. 2004 |
| 8 | Piatkowski et al. 1994 |
| 9 | Kozlov et al. 1991 |
| 10 | Gon & Heemstra 1990 |
| 11 | Torres & Somero 1988b |
| 12 | Saunders et al. 2013 |