

Distribution of Immature Sockeye Salmon in the Bering Sea

- Alaska Department of Fish and Game
- NOAA Fisheries Auke Bay Laboratory
- TINRO-Centre
- KamchatNIRO
- Japan National Salmon Resources Center
- Hokkaido University



BASIS Collaborators:

- **USA:** D. Wilmot, C. Gutherie, T. Walker, K. Meyers, E. Farley, J. Murphy, L. Low, J. Seeb
- **Russia:** O. Temnykh, V. Sviridov, N. Varnavskaya, N. Klovatch, I. Glebov, N. Starovoytov
- **Japan:** S. Urawa, S. Abe, T. Azumaya



Immature Sockeye Salmon in the Bering Sea

- Baseline
- August distribution
- August to October distribution (Russia)
- 1 and 2+ ocean distributions

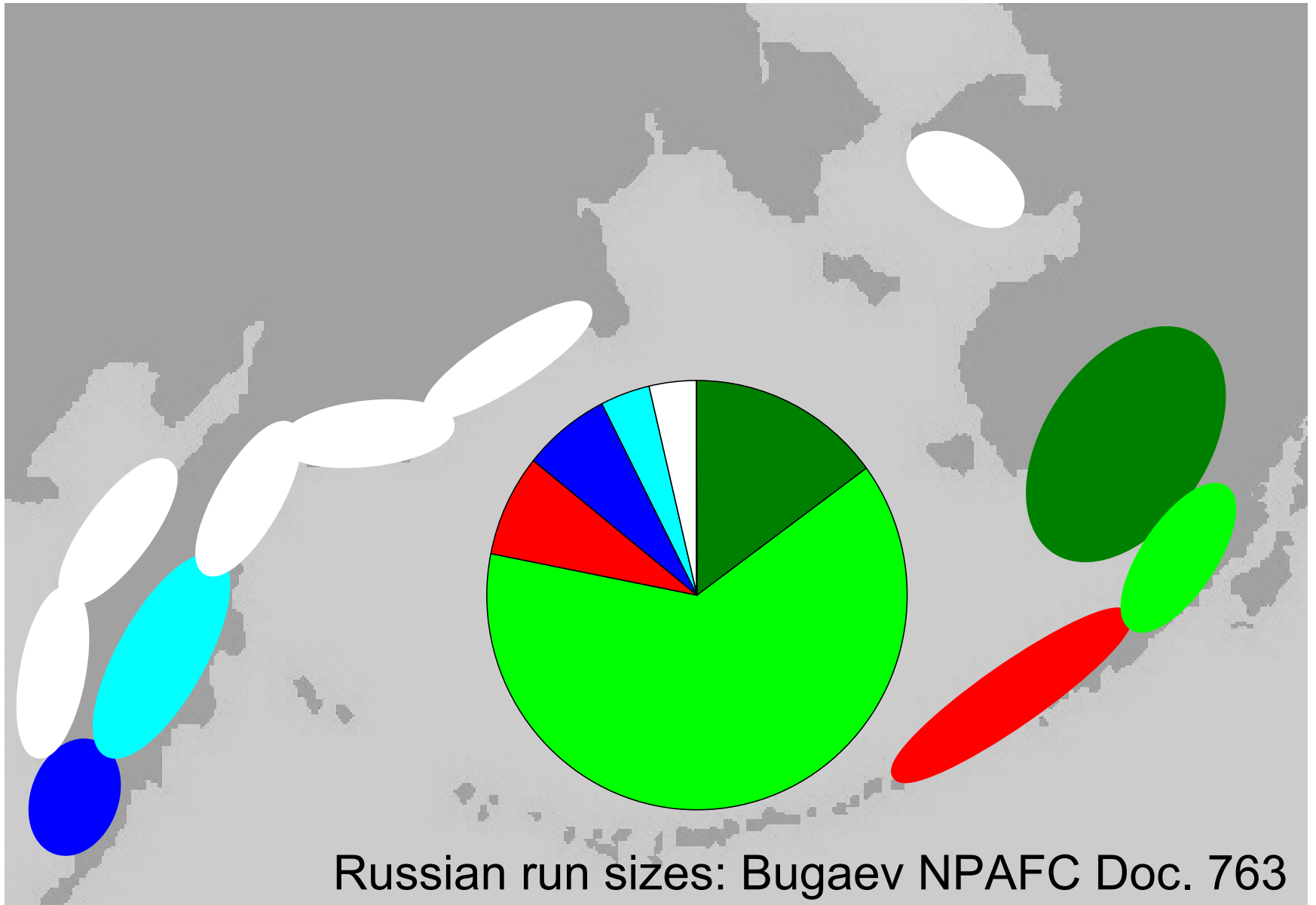


Immature Sockeye Salmon Distribution in the Bering Sea

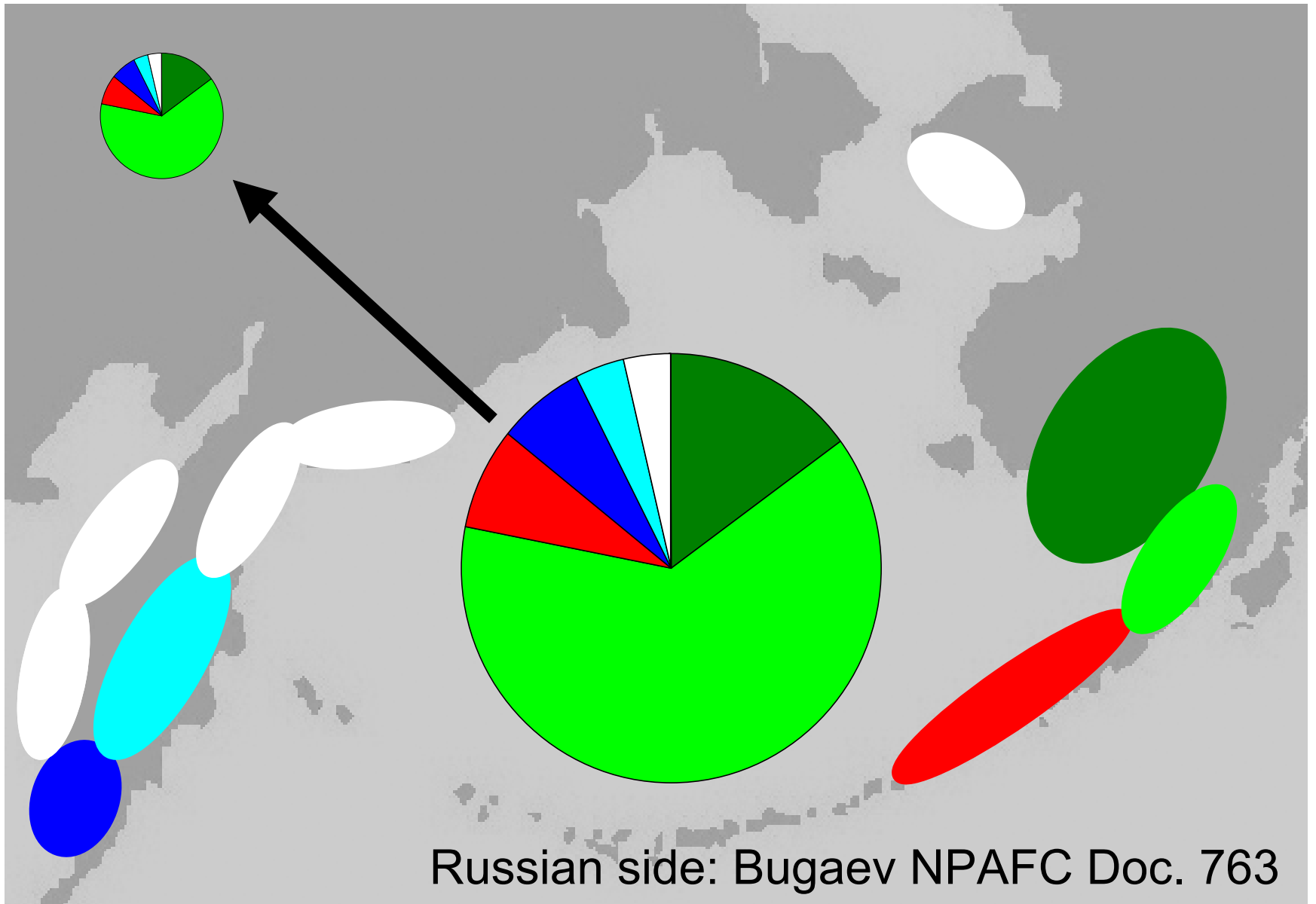
- Baseline



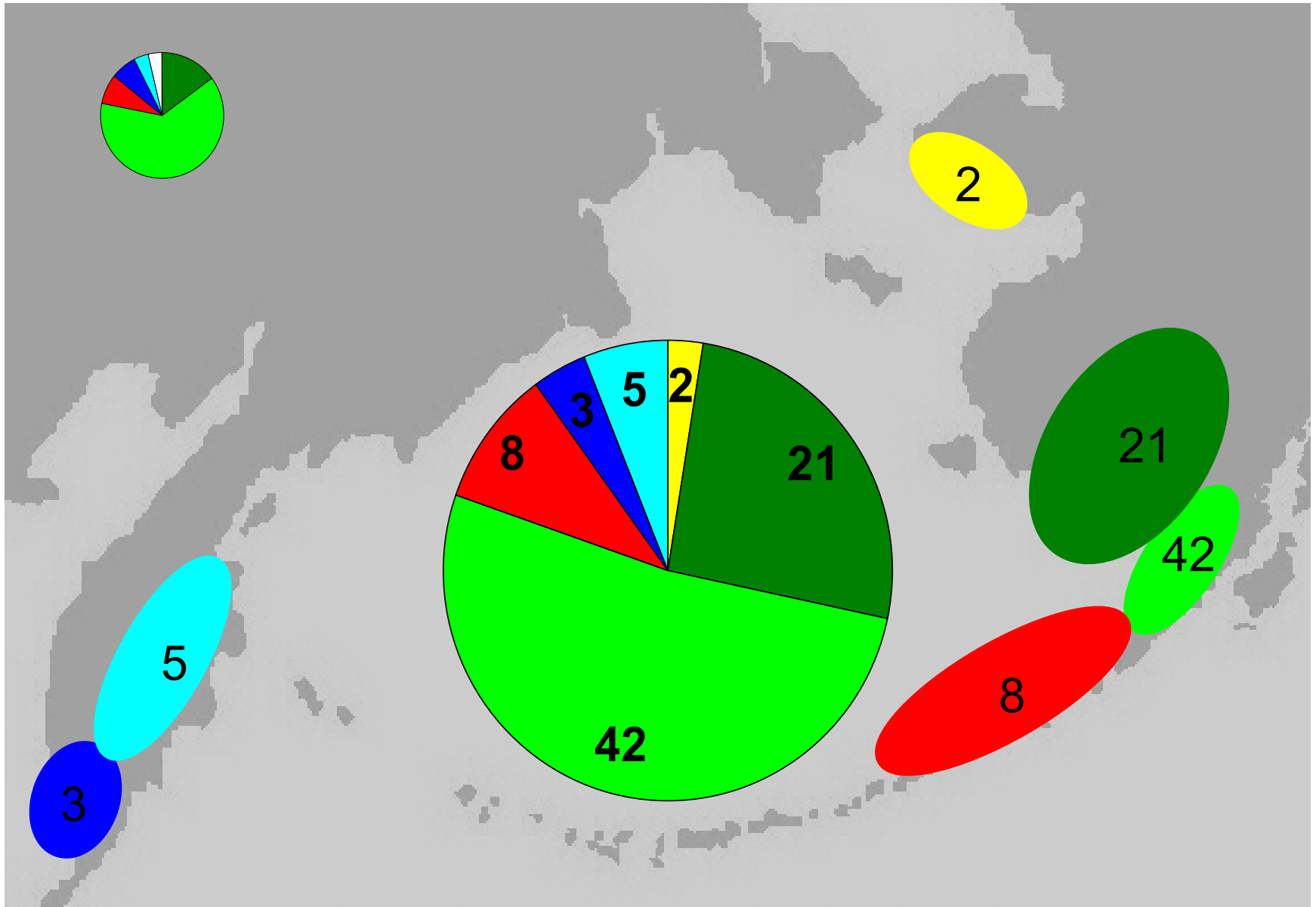
Proportion of Total Bering Sea Run Size by Region



Proportion of Total Bering Sea Run Size by Region



Baseline Collections distributed approximately proportional to run size

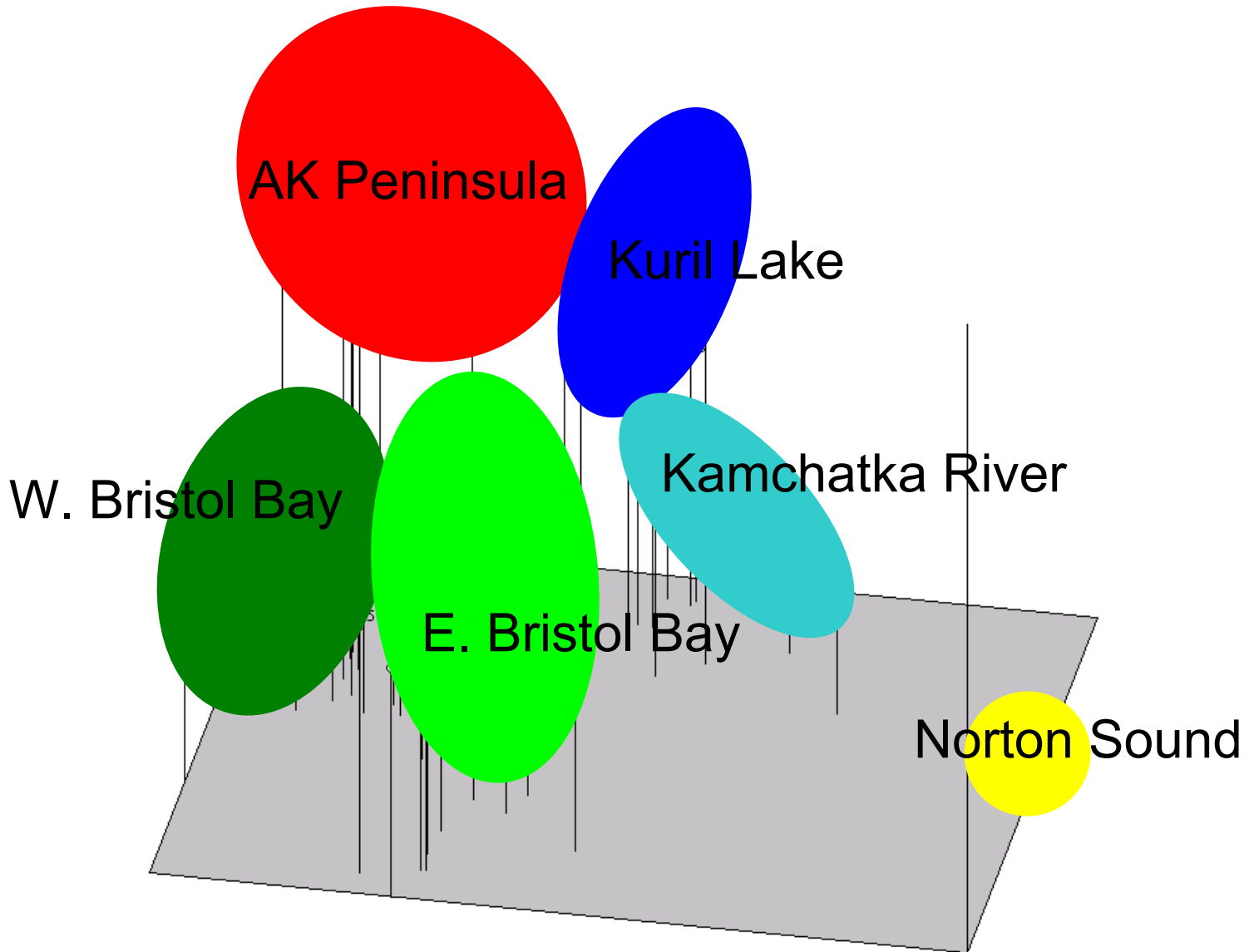


Laboratory Analysis

15 Microsatellites
2 SNPs



Highly Identifiable Groups

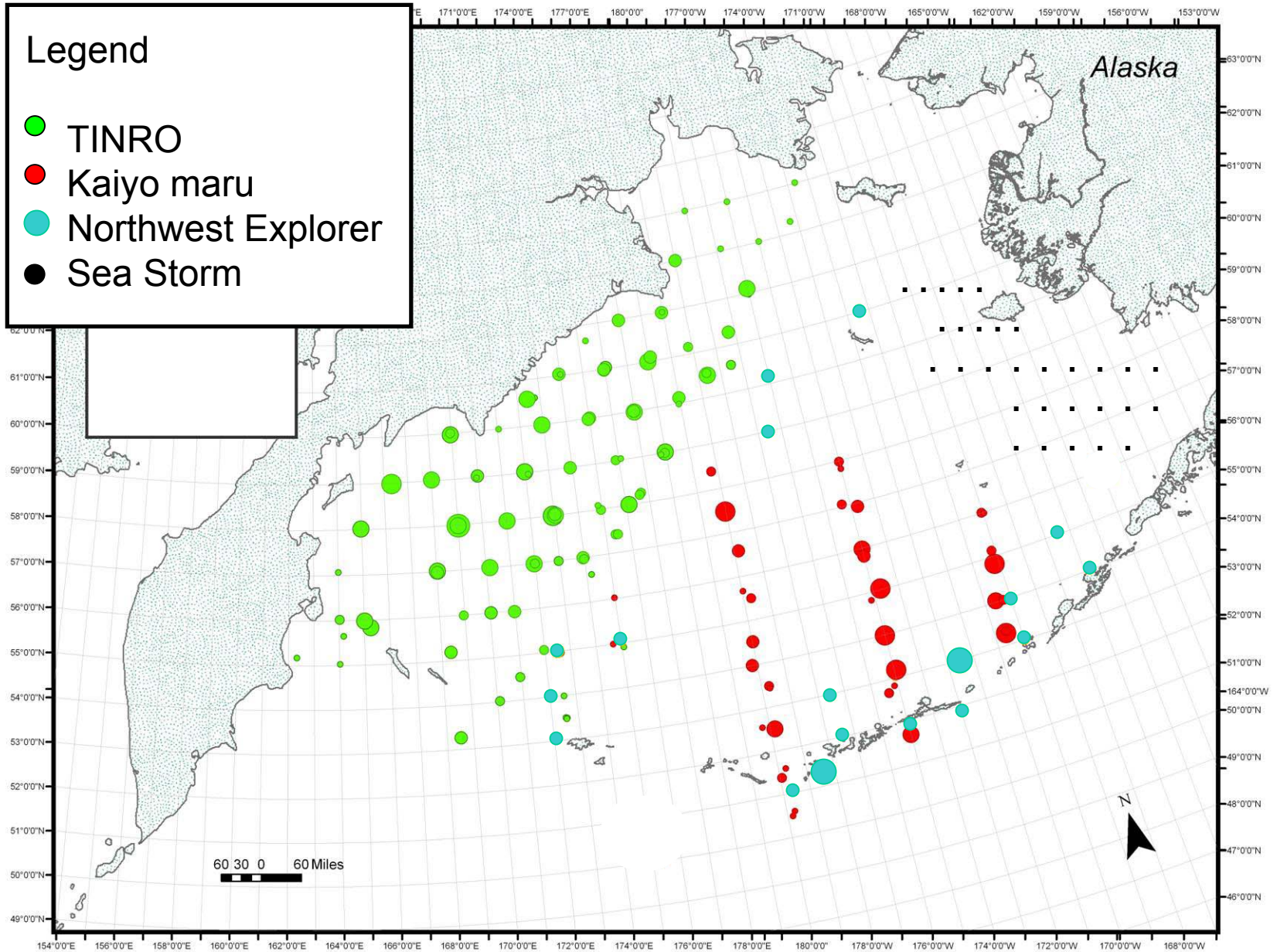


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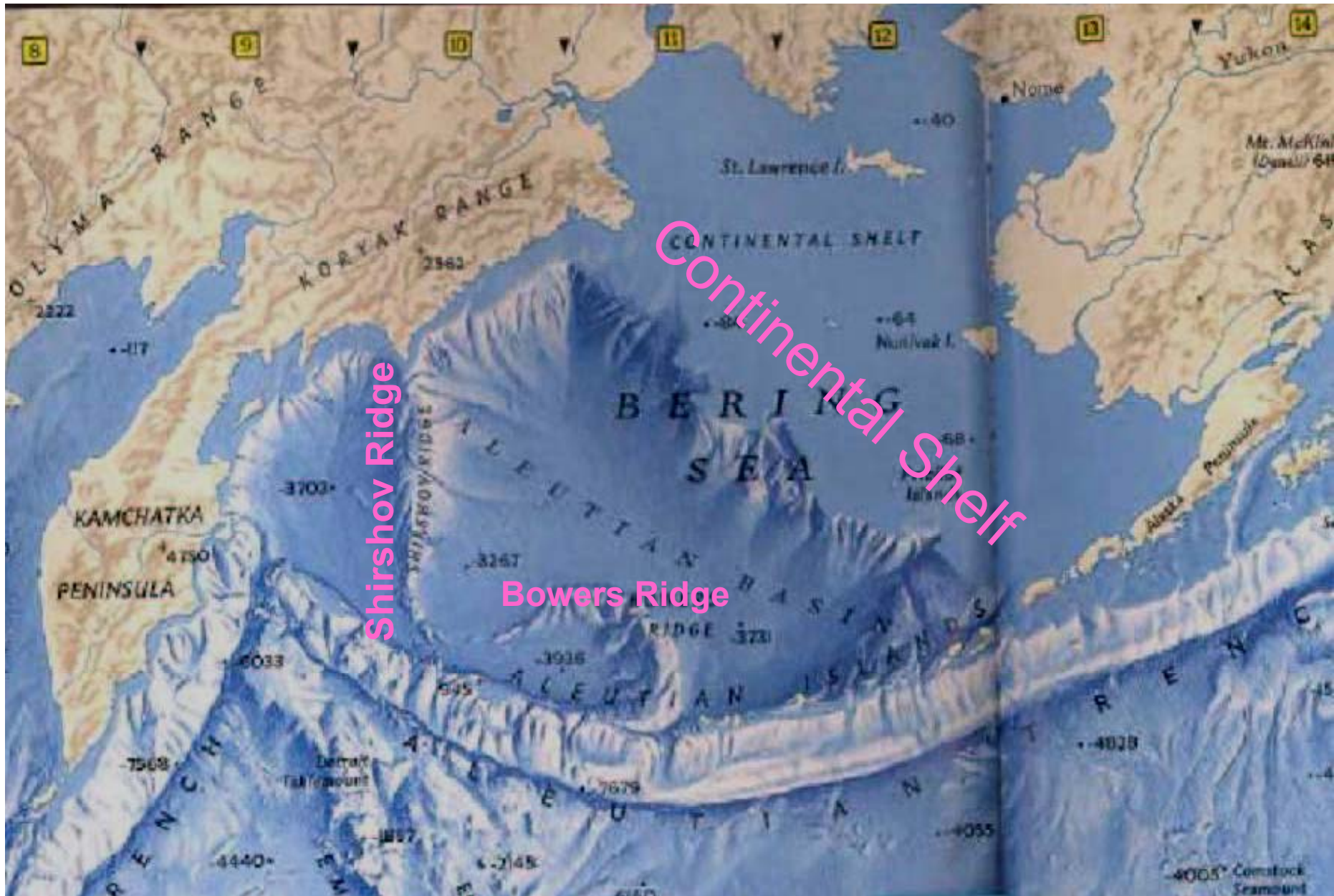
- Baseline
- August distribution



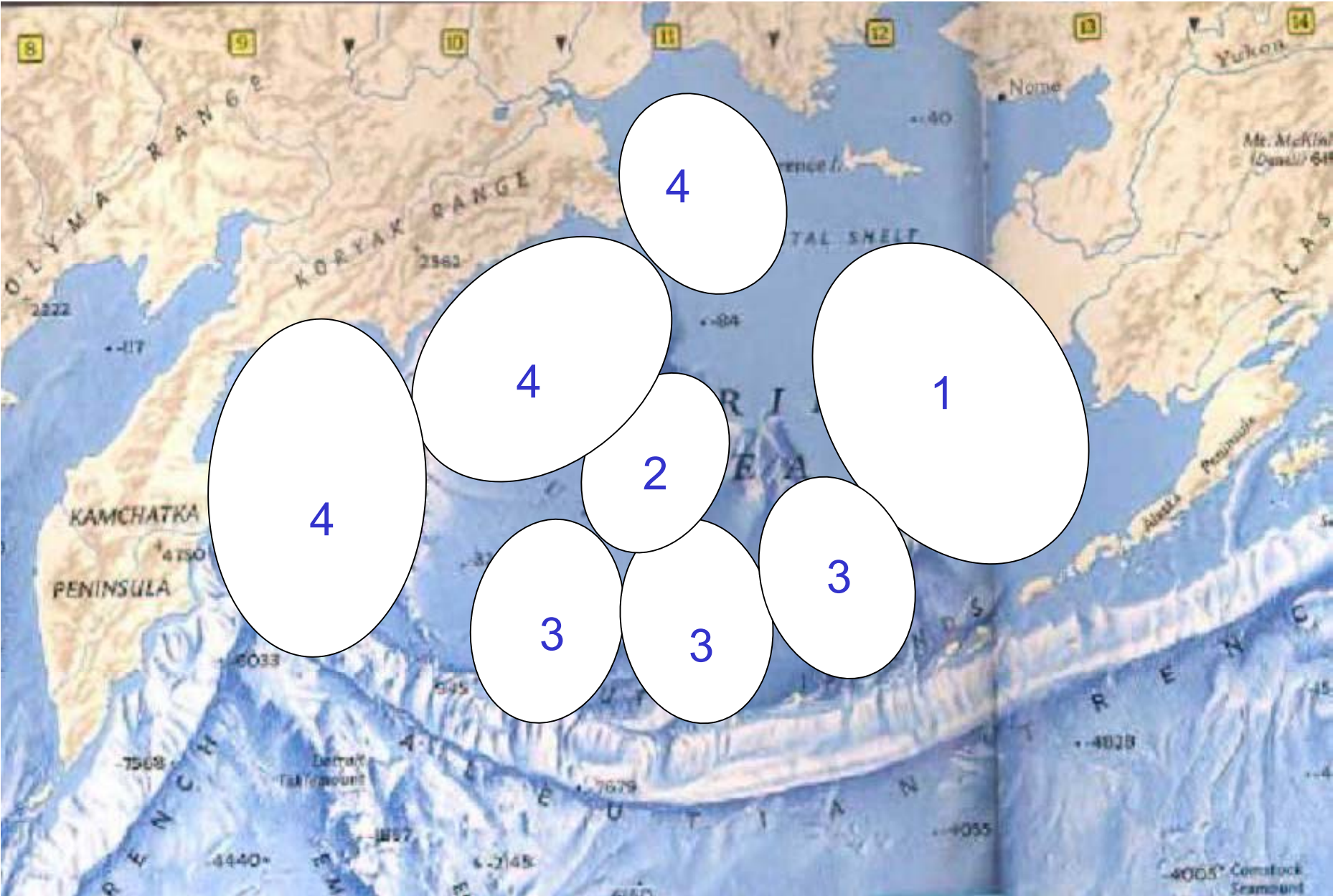
All collections (2002 and 2003)



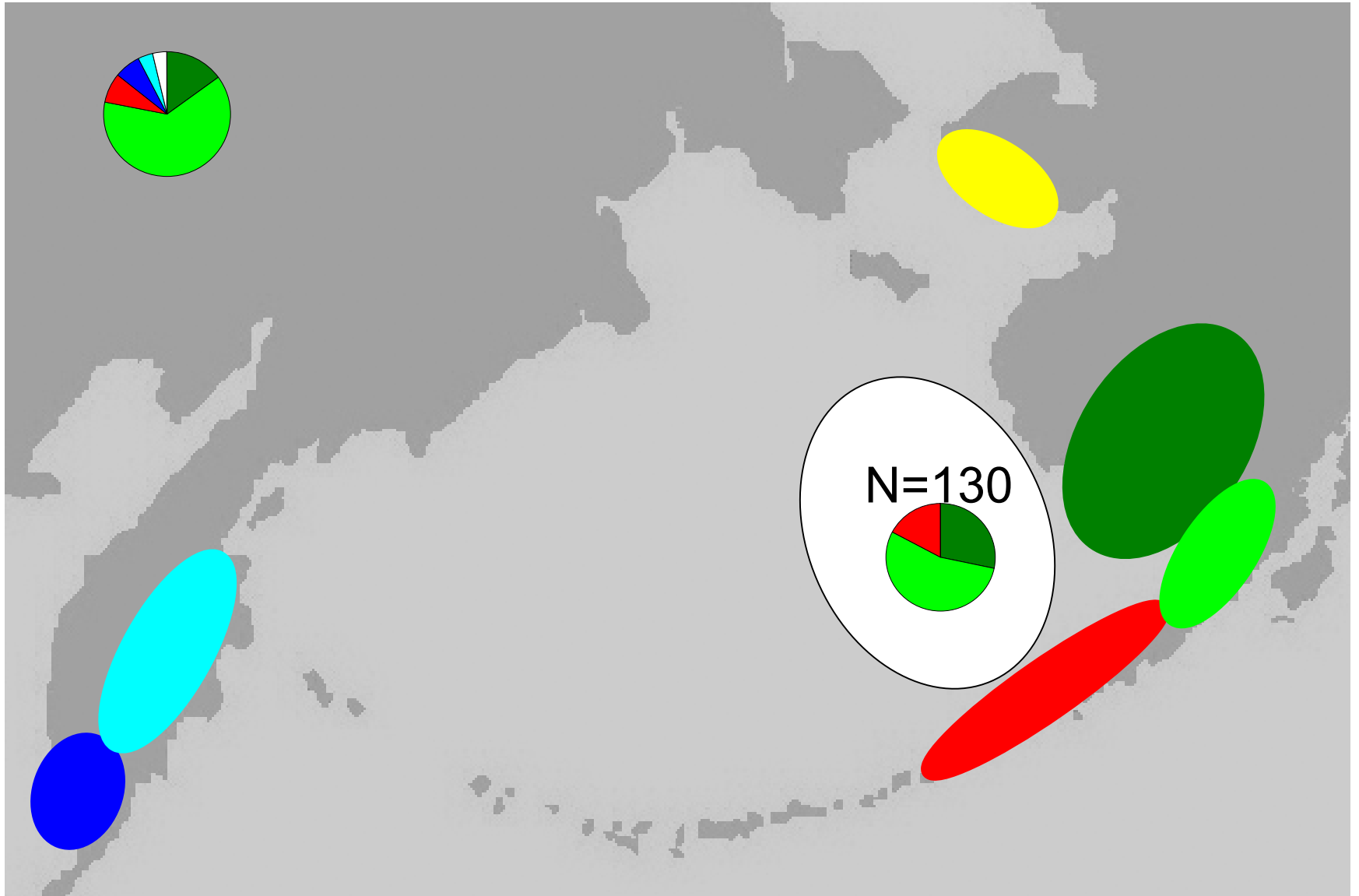
Collections grouped for analysis according to physiography of Bering Sea



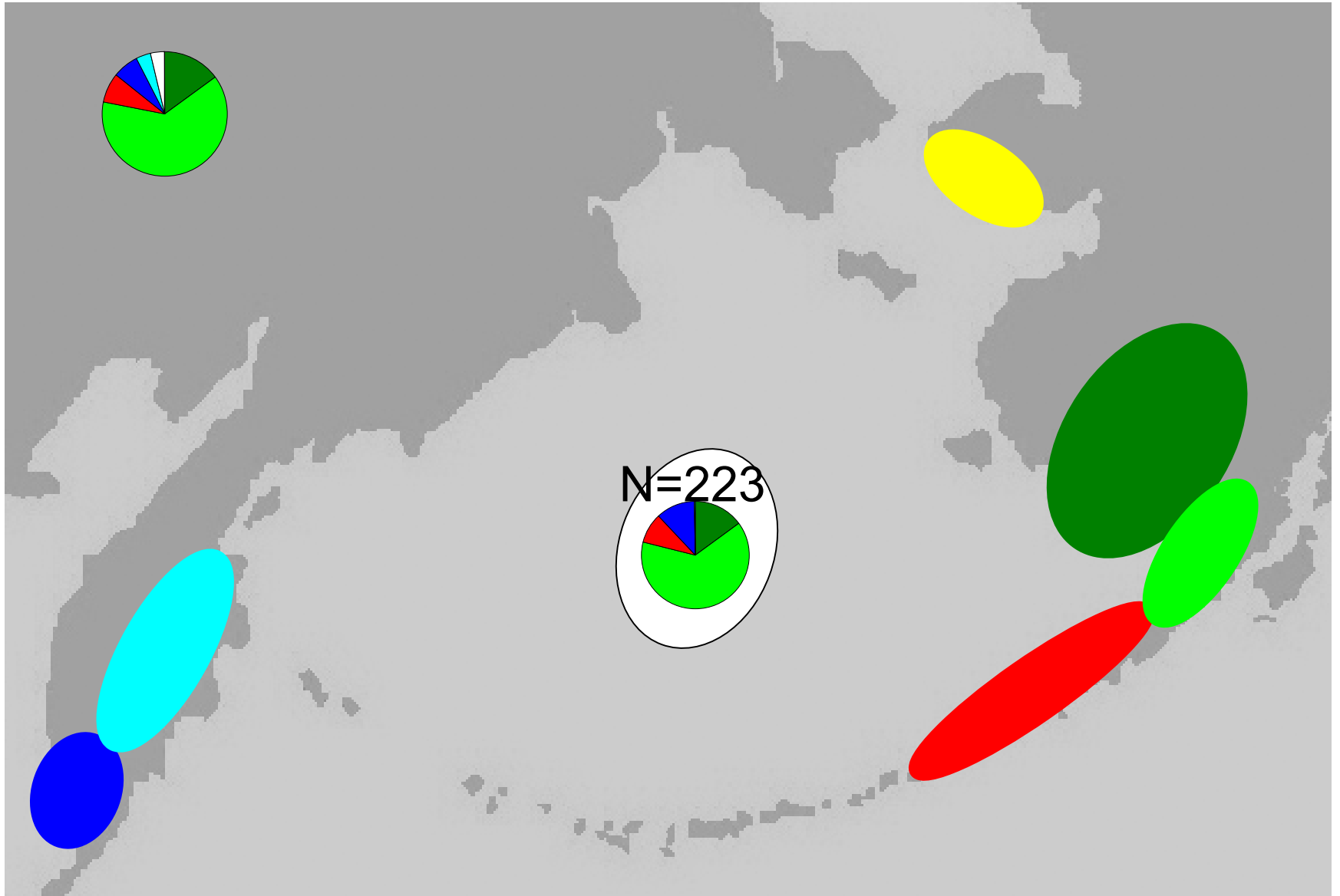
(1) Eastern Continental Shelf, (2) Central Bering Sea, (3) Aleutian Islands, (4) Russian EEZ (Western Continental Shelf and Basins)



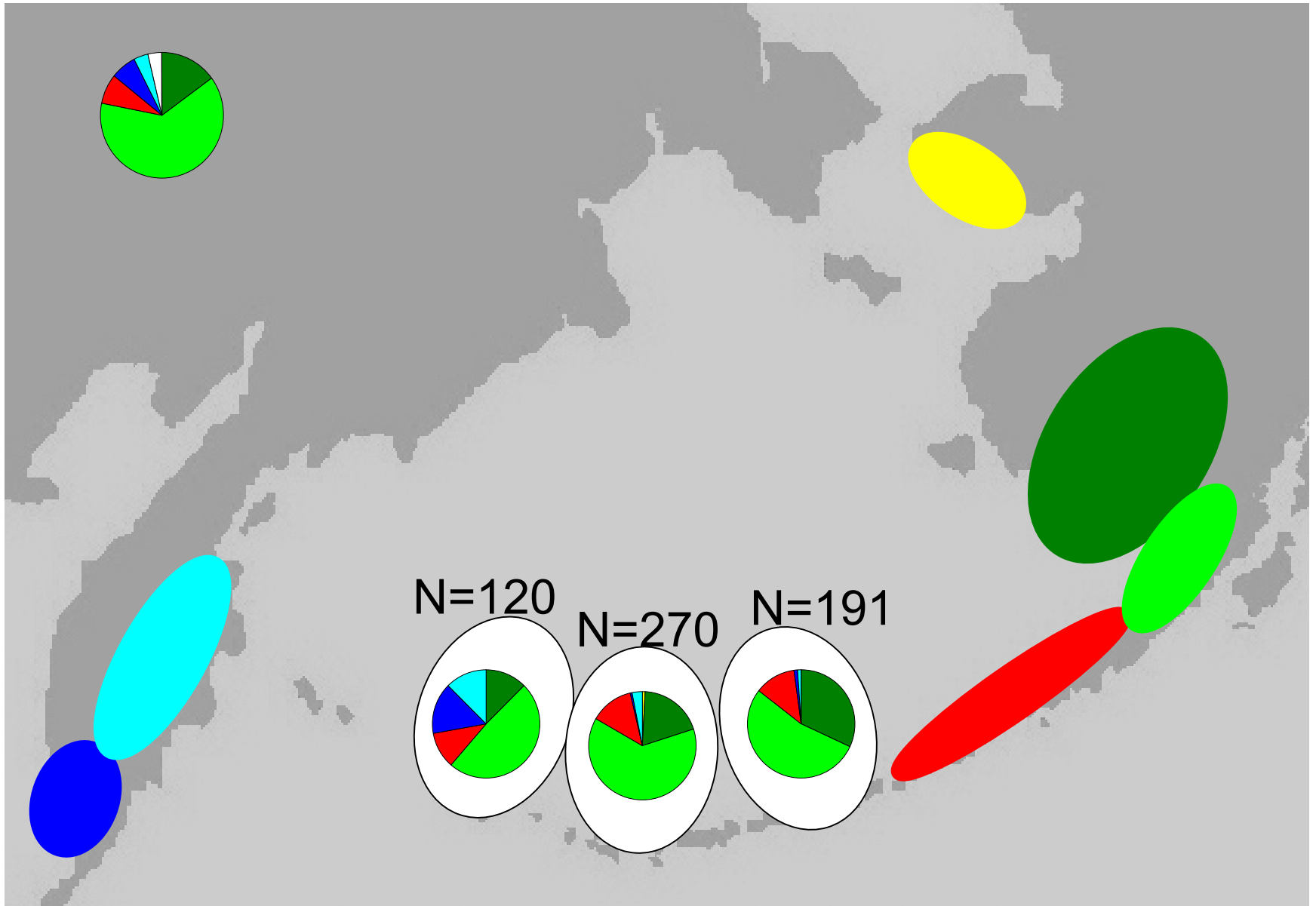
August, Eastern Continental Shelf



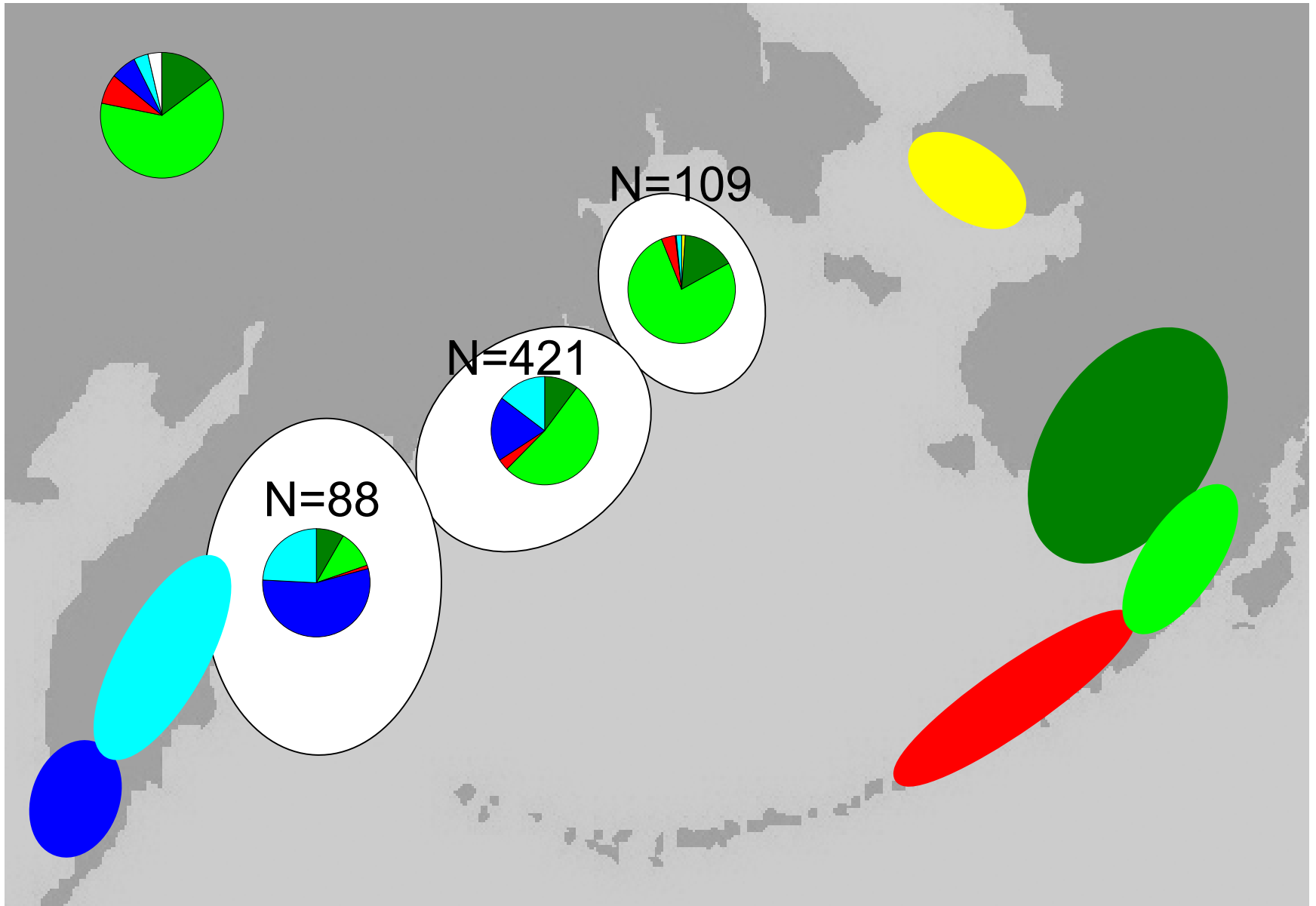
August, Doughnut Hole



August, Aleutian Islands



August, Russia (2003)

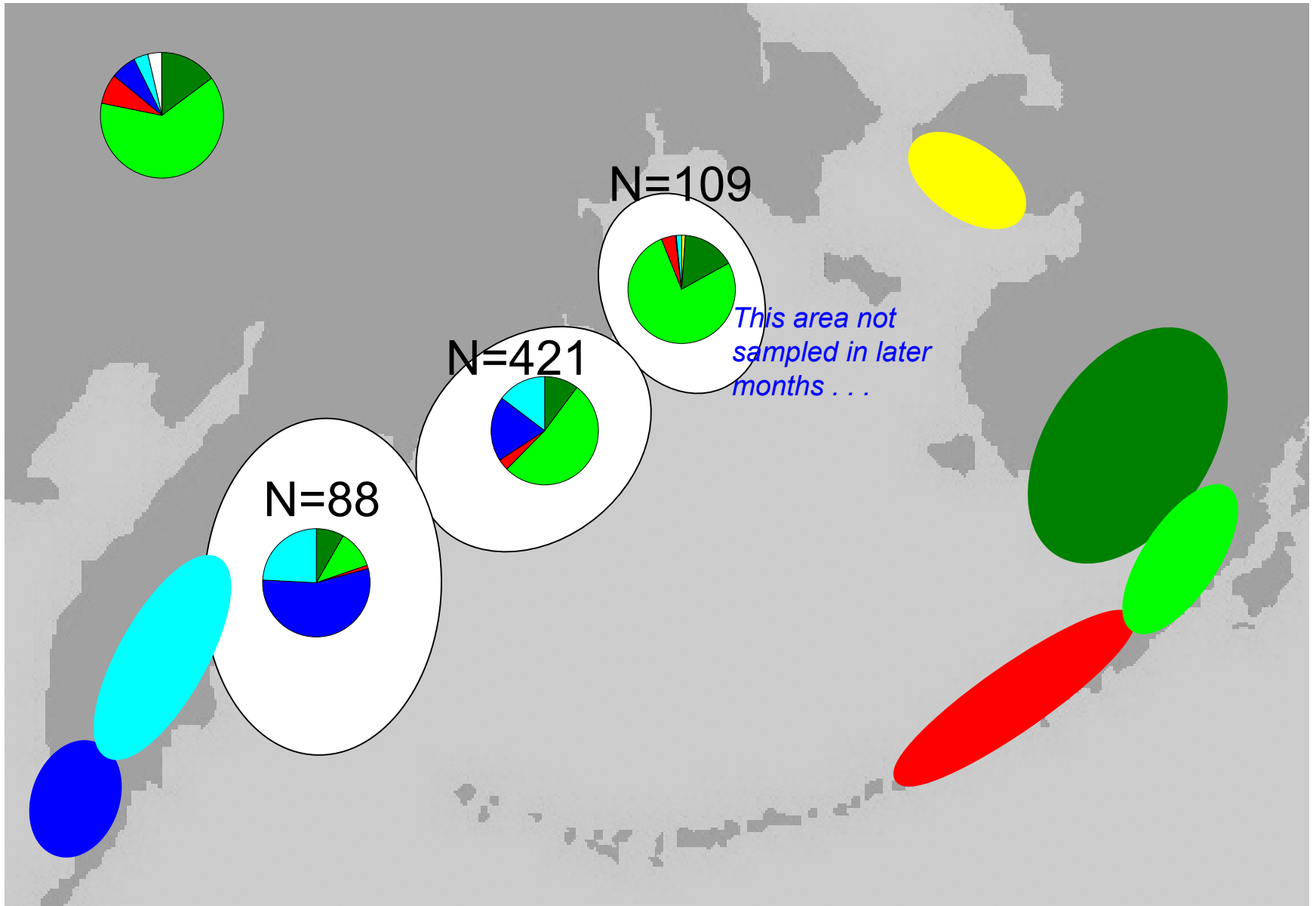


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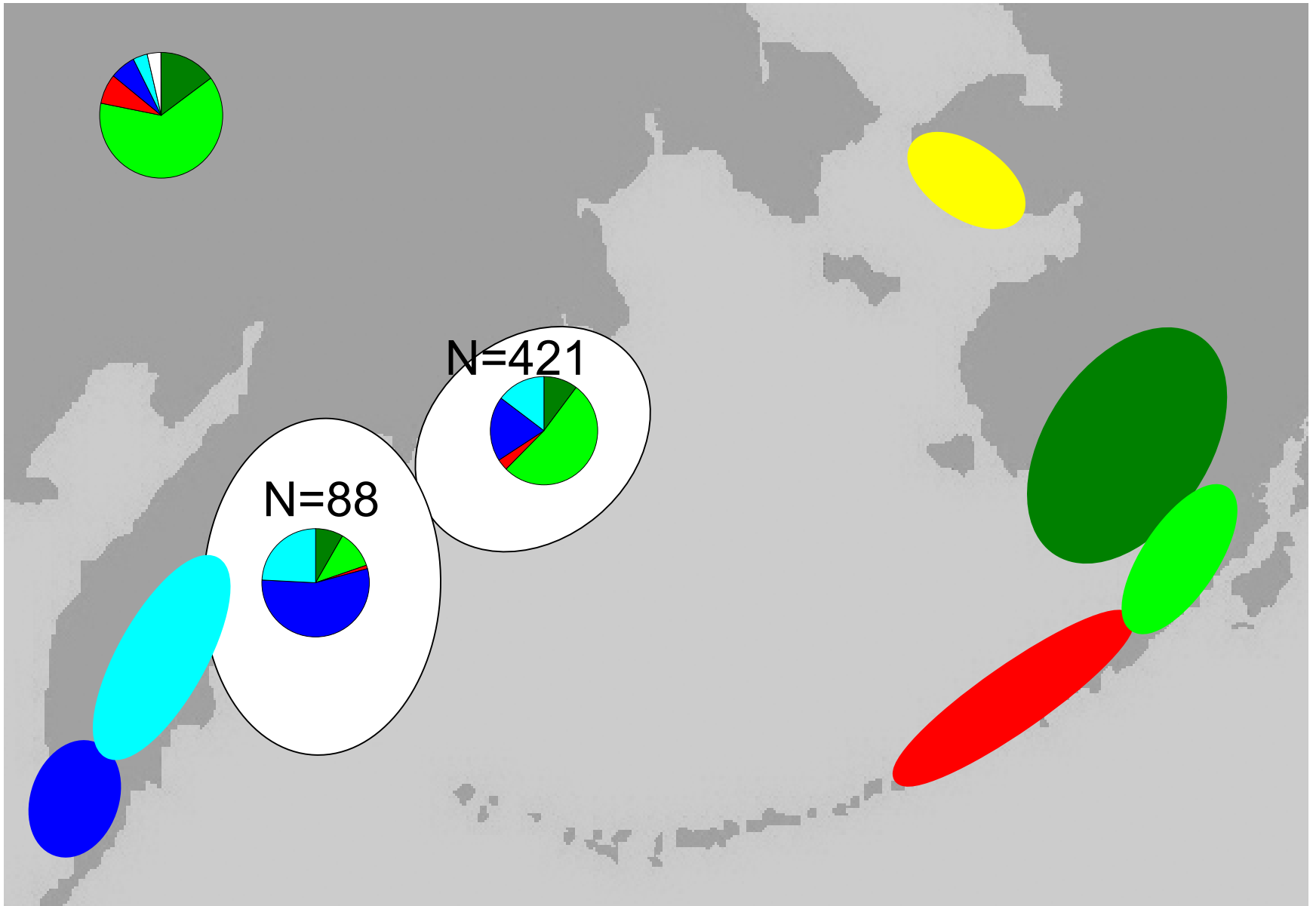
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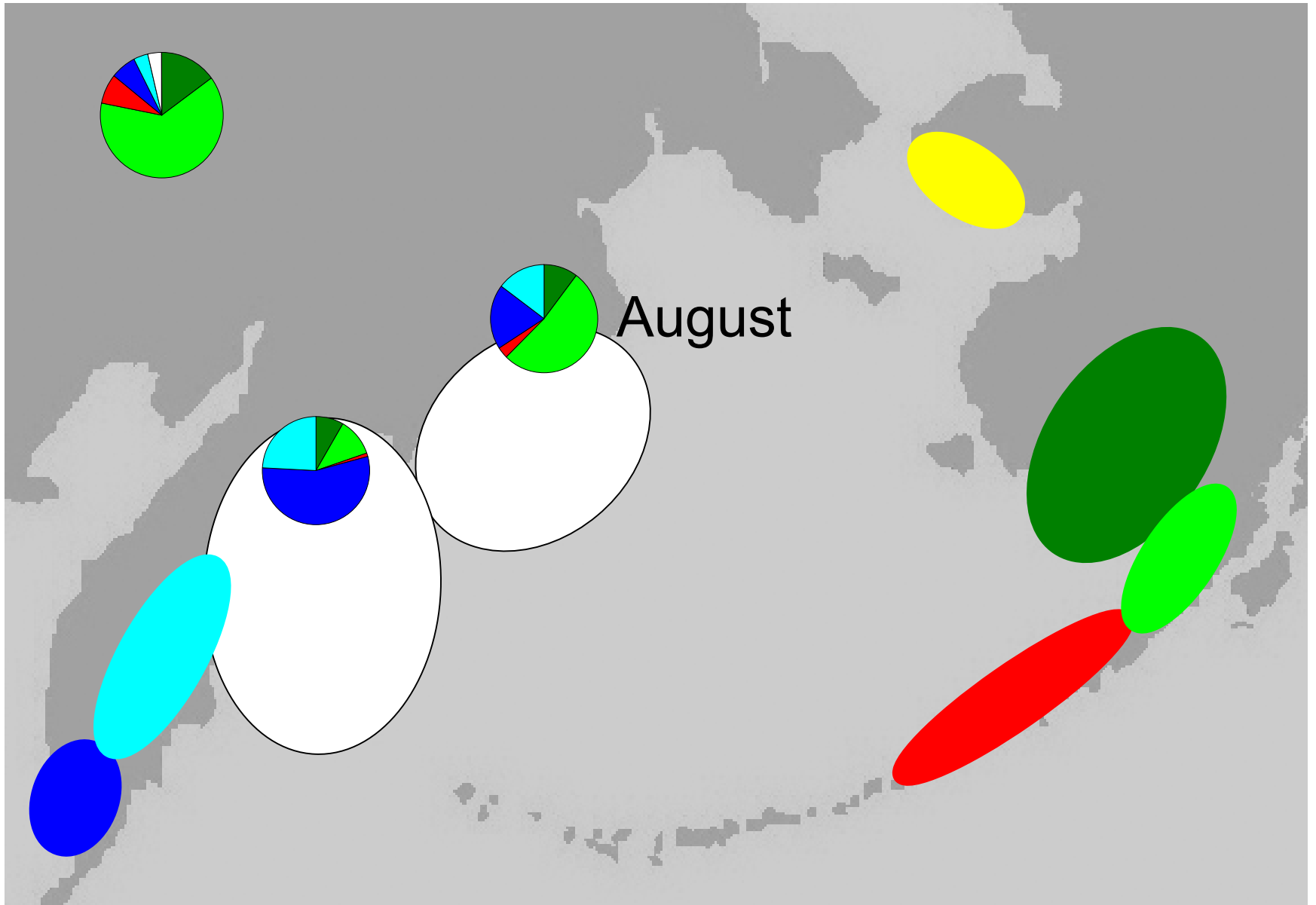
August, Russia (2003)



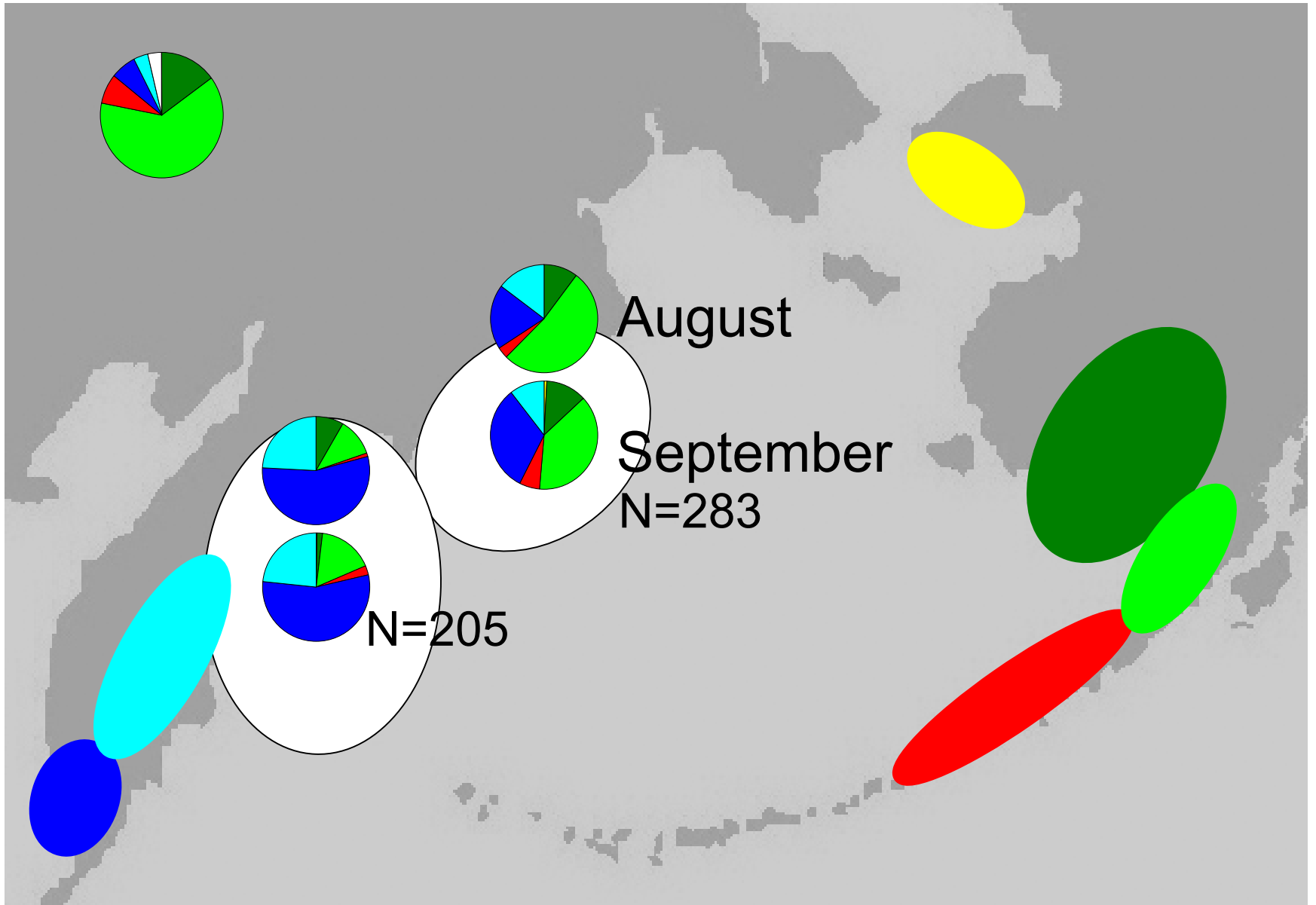
August, Russia (2003)



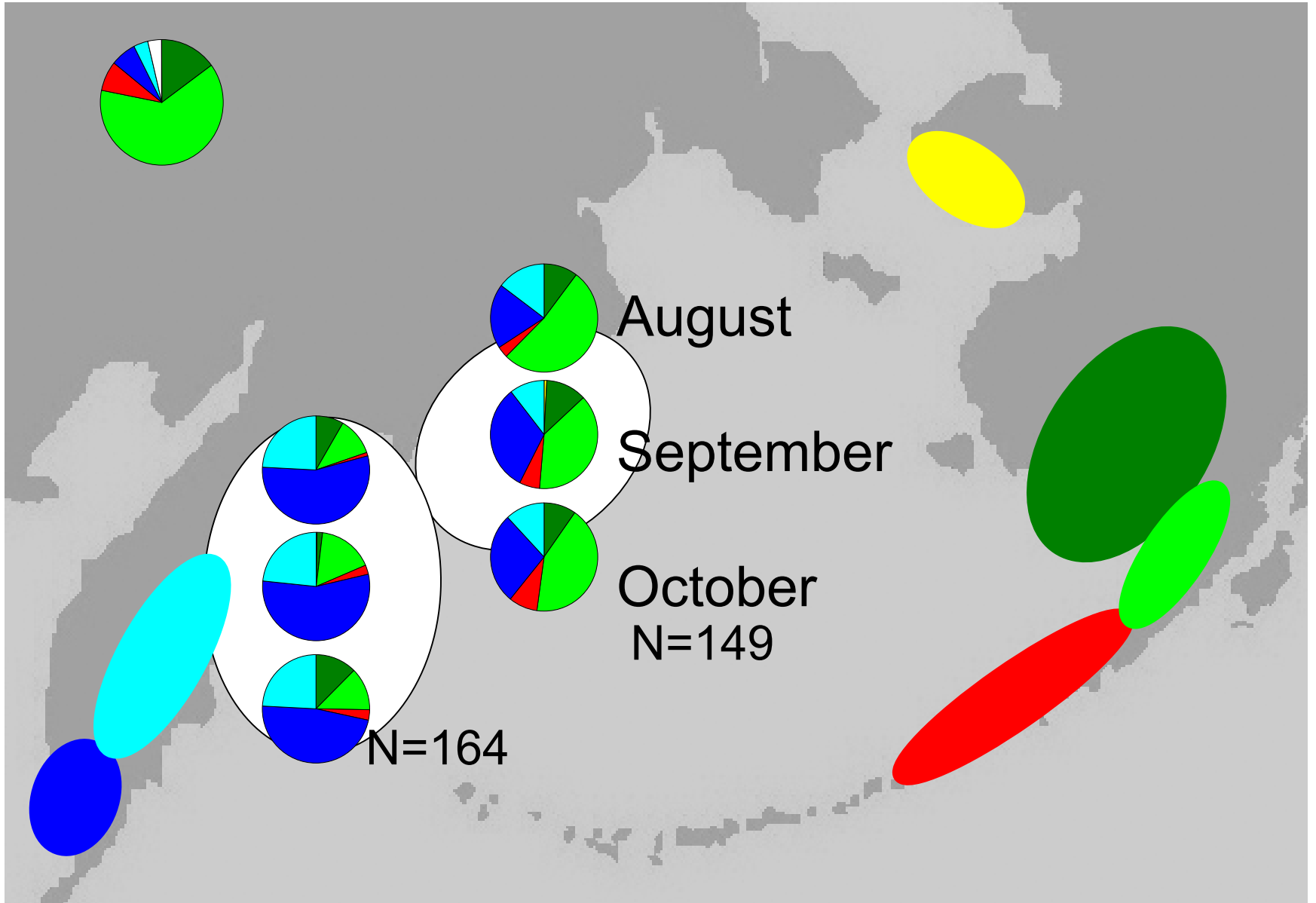
Russia



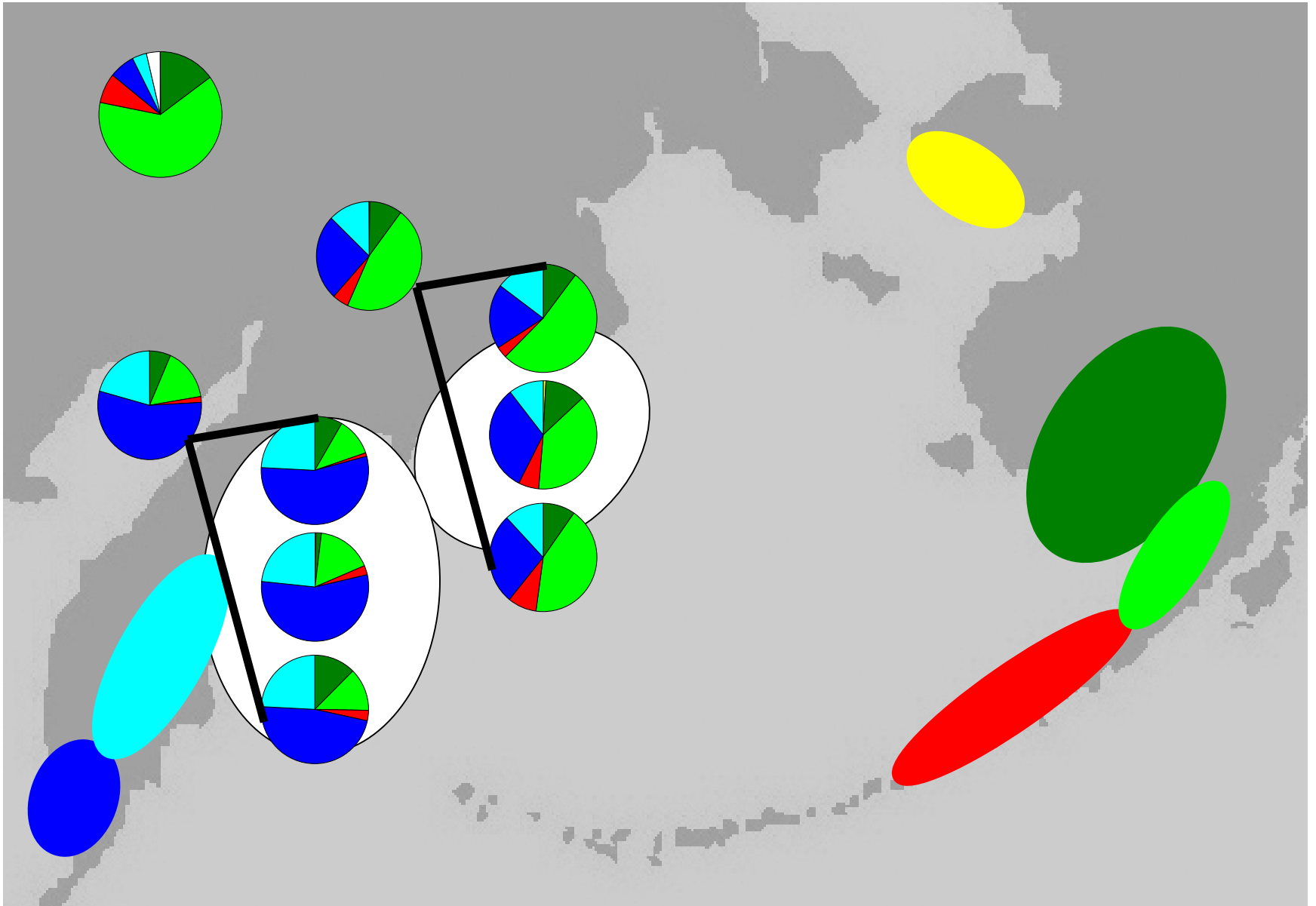
Russia



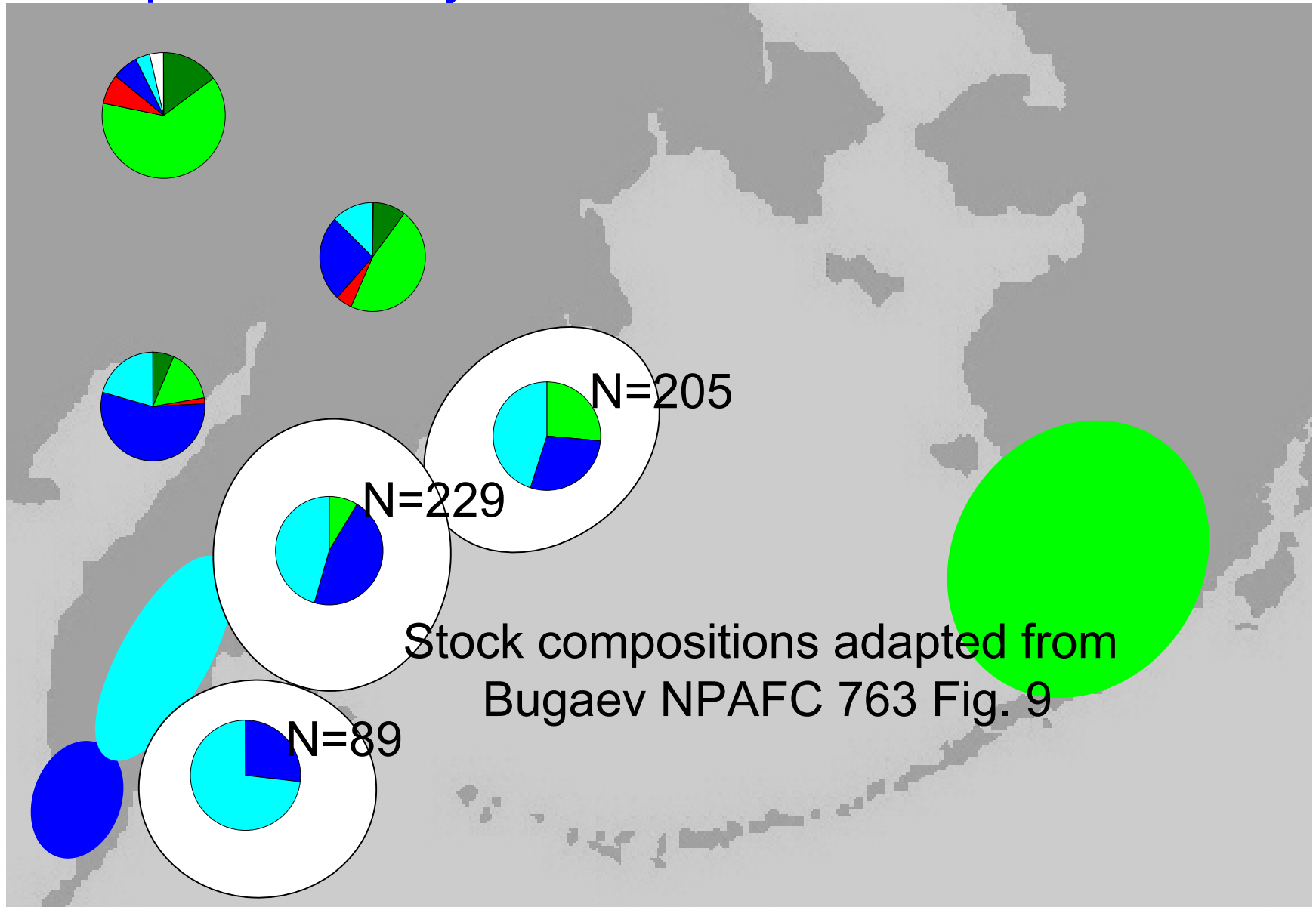
Russia



Russia



Comparison of estimates based upon genetics and scale pattern analysis

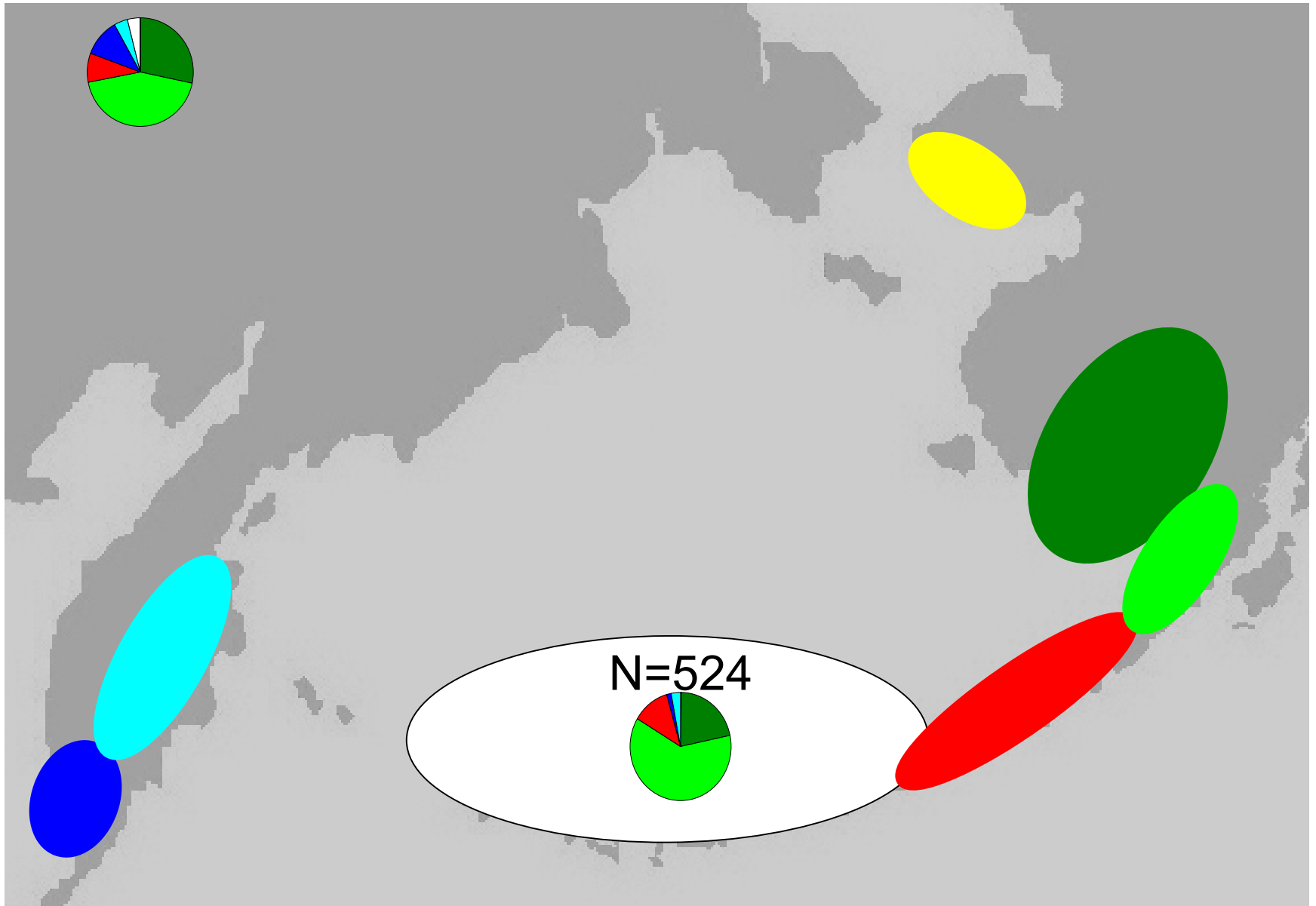


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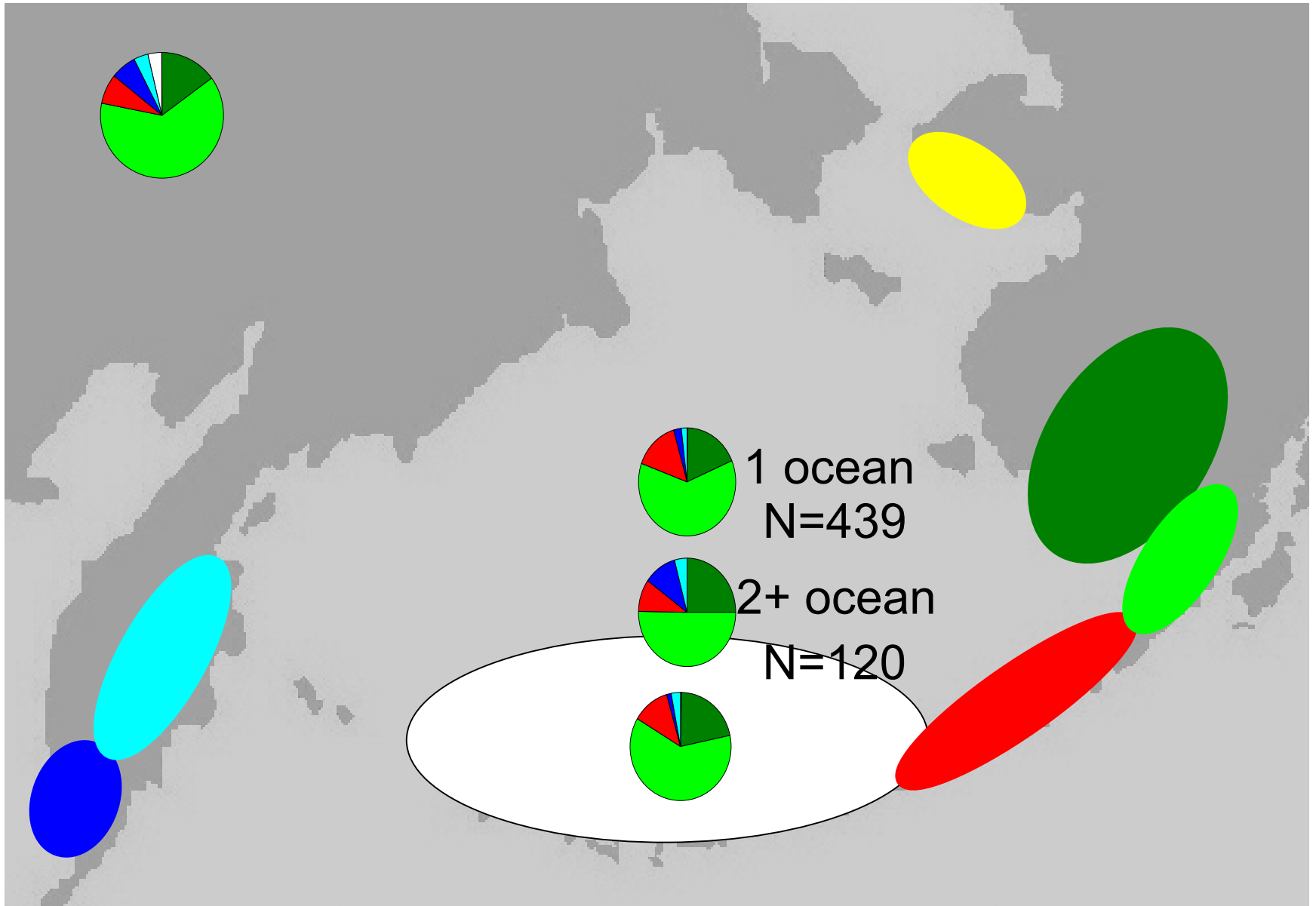
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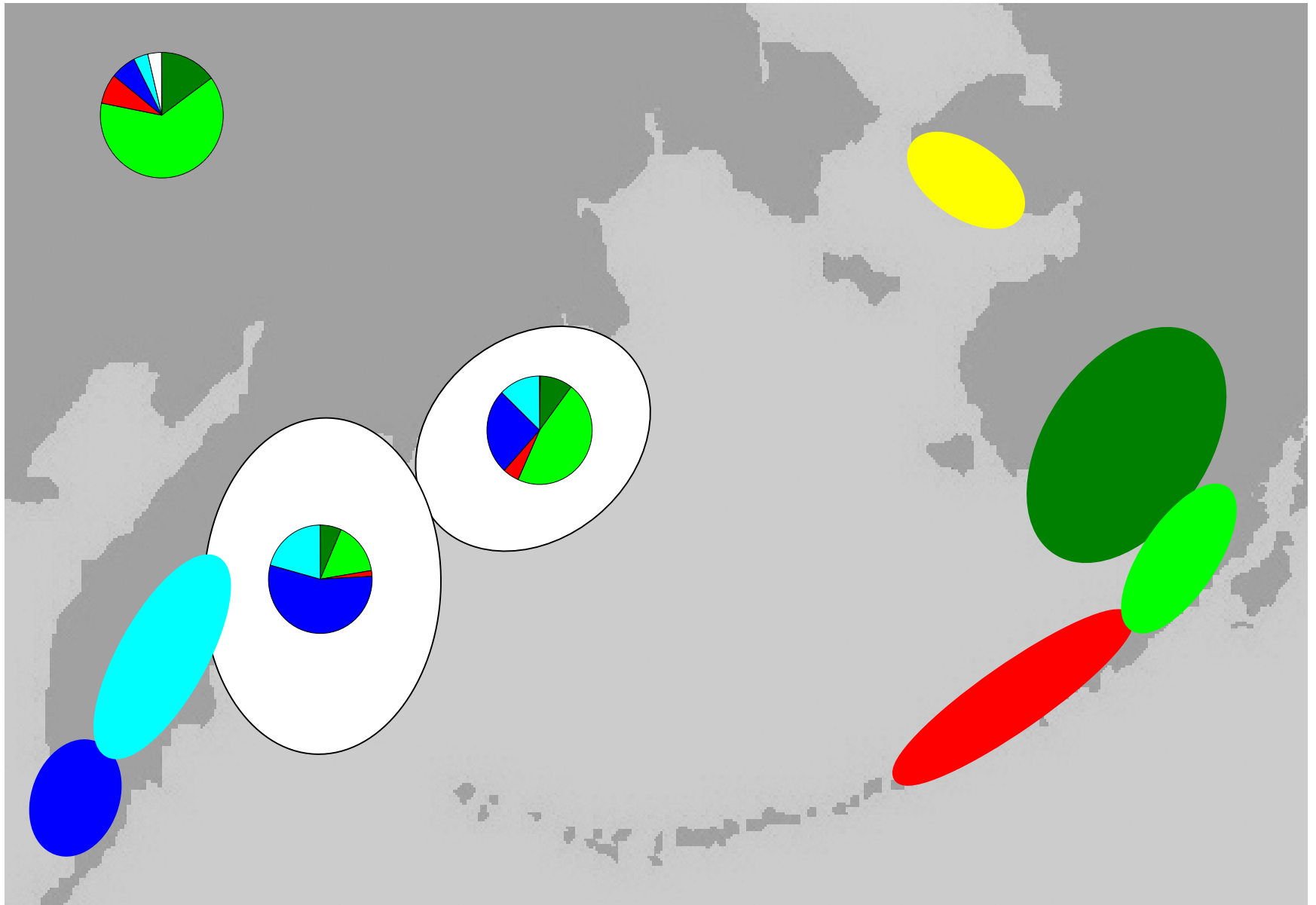
August, Aleutian Islands



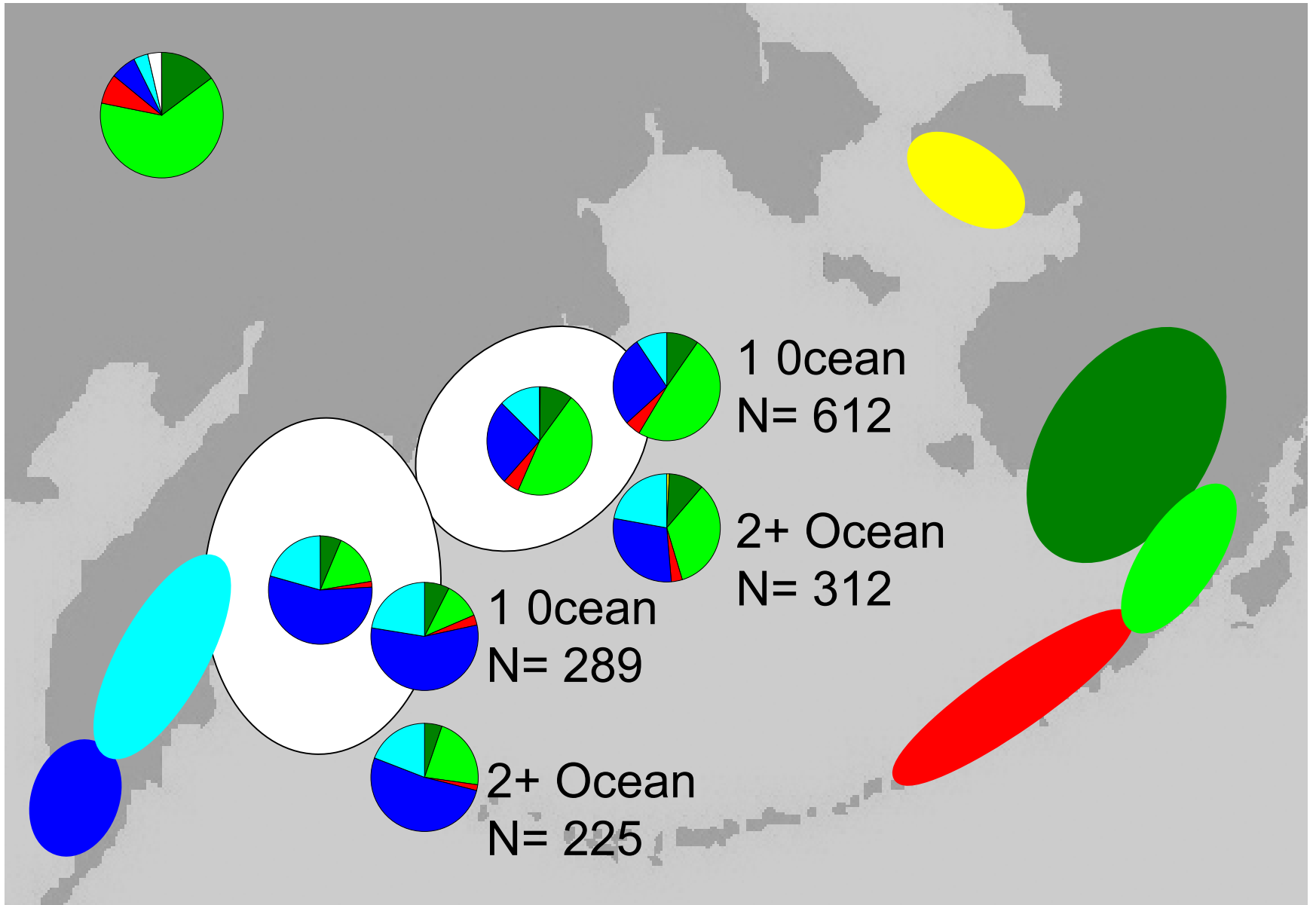
August, Aleutian Islands



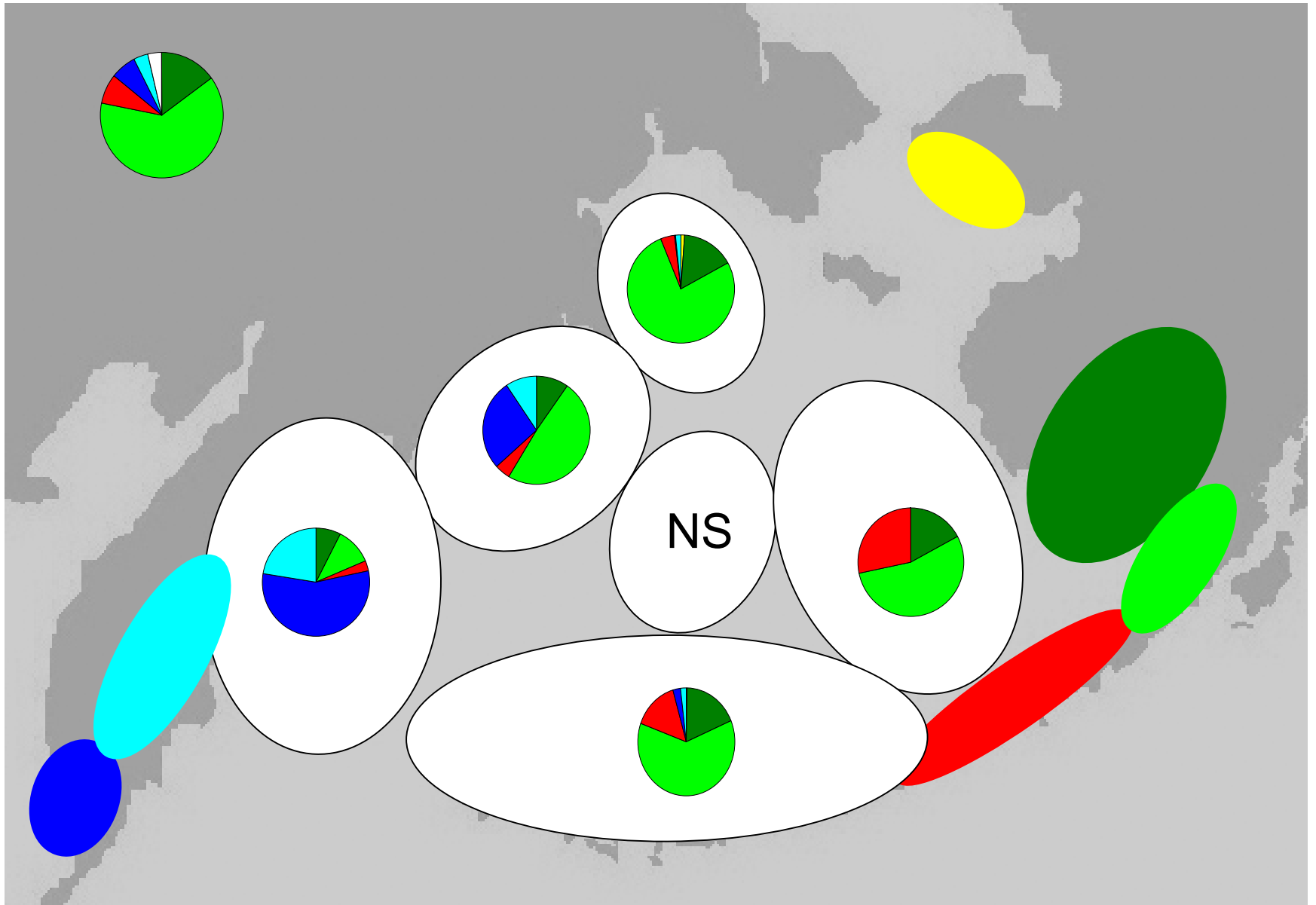
Russia ('02 and '03, Aug, Sep, Oct)



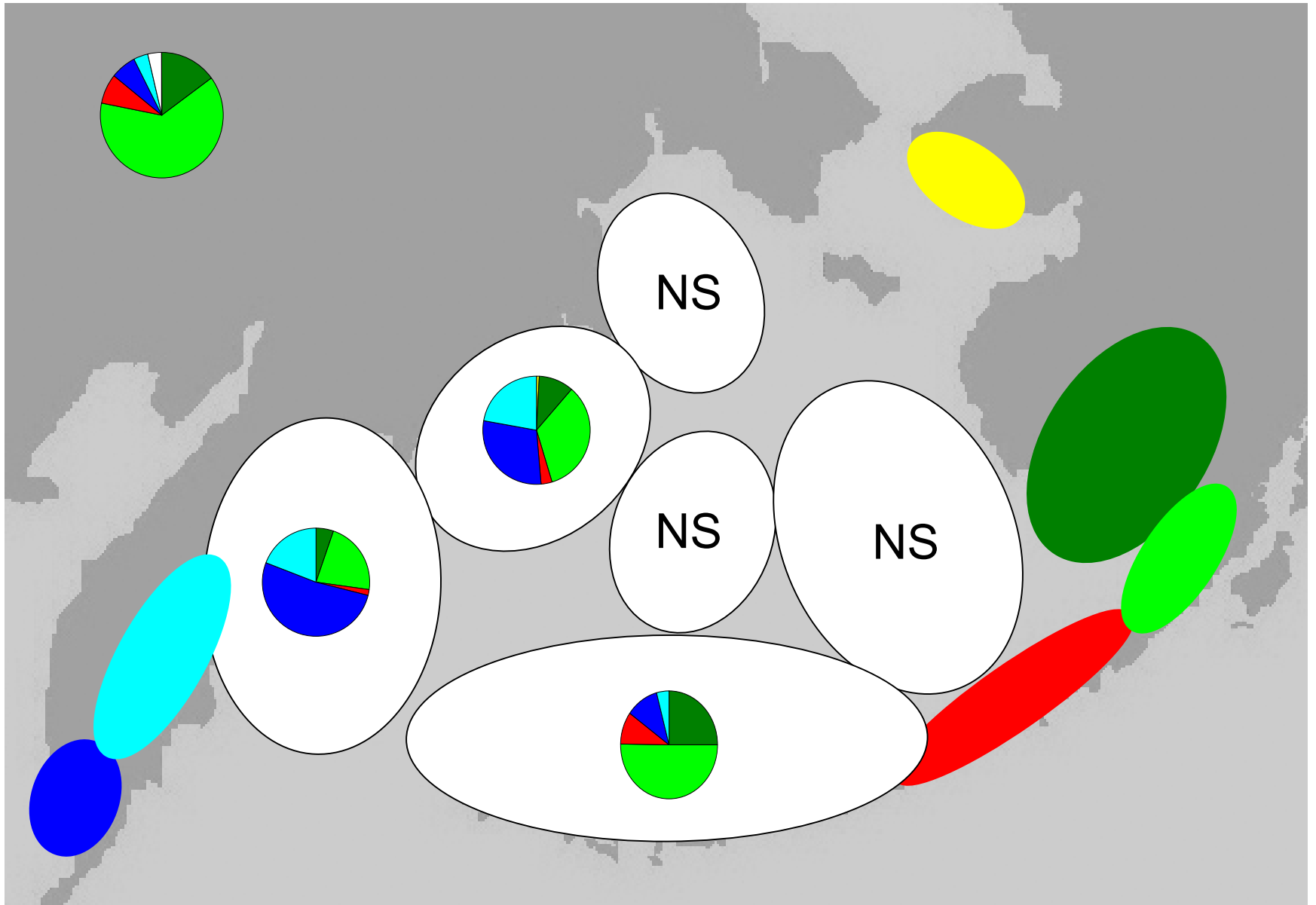
Russia ('02 and '03, Aug, Sep, Oct)



1 Ocean Fish



2+ Ocean Fish



Funding:

- North Pacific Research Board
- NPAFC Special Project Funds
- NOAA Fisheries MOA Funds

