The apparent growth rates were significantly negative for (and each Kuroshio OKR) nauplii Microbial TC in left) taxonomic et China Naked ciliates are major grazer of microzooplankton community. the zero Diat Toward the OKR, the relative contribution increased for ◇ biomass a dinoflagellates of 1.0 △ community of their chlorophytes Nano difference Chlo of Maximum chlorophyll composition rates phytoplankton size Kuroshio-chlorophyll Micro Nano prasinophytes Microzooplankton grazing composed more than half of primary production in microzooplankton CN (day and to OKR. Apparent enrichment concentrations chlorophyll Naked ciliates composed more than half of microzooplankton biomass throughout the stations, indicating a major grazer. from and maximum OKR path Sea in 0.5 and experiments. Rates were similar among the three groups, implying Kuroshio-Clarify trophic sources and pathways to from dilution of phytoplankton Microzooplankton Micro NS offshore tintinnids 1.5 conducted experiments. Evaluate importance of microzooplankton for trophodynamics to higher growth ● on concentrations (Chen without 2 haptophytes food web is though to be predominant among the trophodynamics in plankton community in for pico OKR Measure microzooplankton grazing rates and impacts on phytoplankton community using significantly & G. K primary (Landry 2009 IKR -dilution grazing a Microzooplankton Micro al 5, µ) –1 Microzooplankton al 1.5 fractionated autotrophs were predominated over the three regions and the relative contributions of pico-autotrophs increased IKR to OKR. Prochlorococcus and chlorophytes (%Prochlorococcus) were predominant groups. Toward the OKR, the relative contribution increased for Prochlorococcus but declined for diatom.

Results
- Naked ciliates composed more than half of microzooplankton biomass throughout the stations, indicating a major grazer.
- Pico to nano-autotrophs were predominated over the three regions and the relative contributions of pico-autotrophs increased IKR to OKR. Prochlorococcus and chlorophytes (%Prochlorococcus) were predominant groups.
- Toward the OKR, the relative contribution increased for Prochlorococcus but declined for diatom.

Results
- Microzooplankton grazing rates were greater for nano-autotrophs, while maximum growth rates were similar among the three groups, implying that nano-autotrophs are consumed by microzooplankton.
- The apparent growth rates were significantly negative for Prochlorococcus, haptophytes and chlorophytes (%Prochlorococcus), indicating that these taxa are removed by microzooplankton.

Results
- Microzooplankton grazing composed more than half of primary production in the ECS-Kuroshio, indicating major grazer on phytoplankton community.
- Grazing impacts were similar or higher compared with those at the tropical to subtropical sites.

Conclusion
- Naked ciliates are major grazer of microzooplankton community.
- A major trophic pathway is haptophytes for nano-autotrophs and Prochlorococcus for pico-autotrophs to naked ciliates.
- Naked ciliates are crucial for trophodynamics integrating microbial production in the ECS-Kuroshio.

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