

Standardizing Zebrafish Husbandry: Past, Present, and Future

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charles river

The Past...



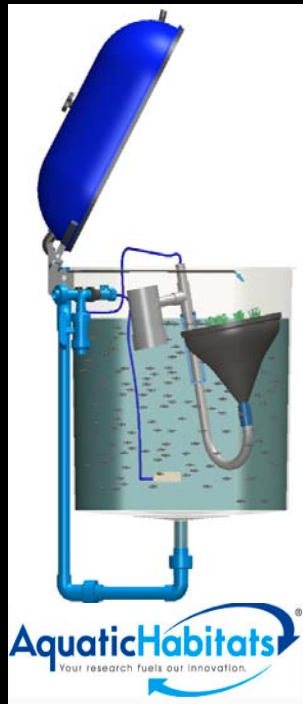
<http://www.fossilmuseum.net/index.htm>



Zebrfish Standardization: Cursed by Their Own Hardiness



The Present...

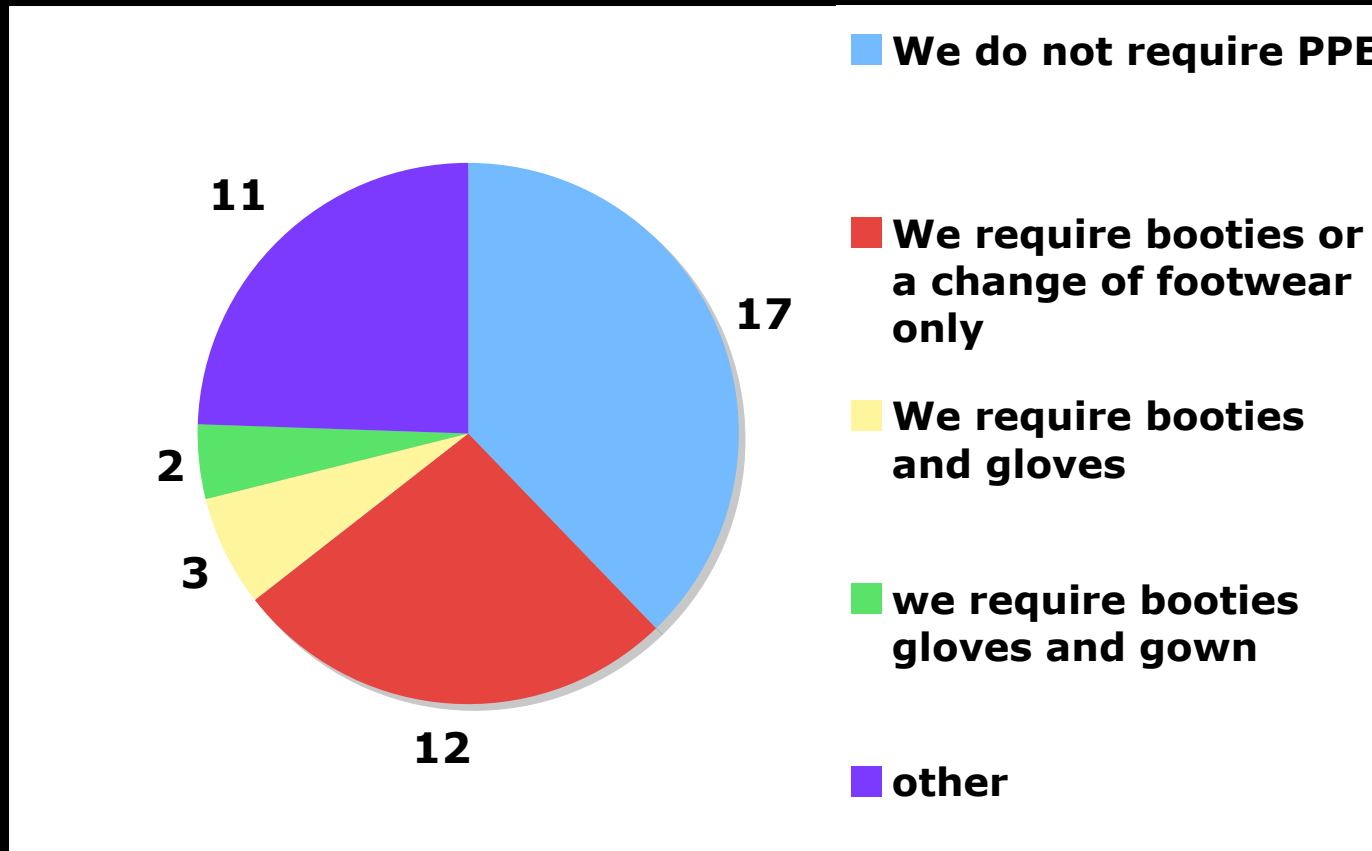


The Current State of Zebrafish Husbandry

Insight from ZHA organized husbandry surveys



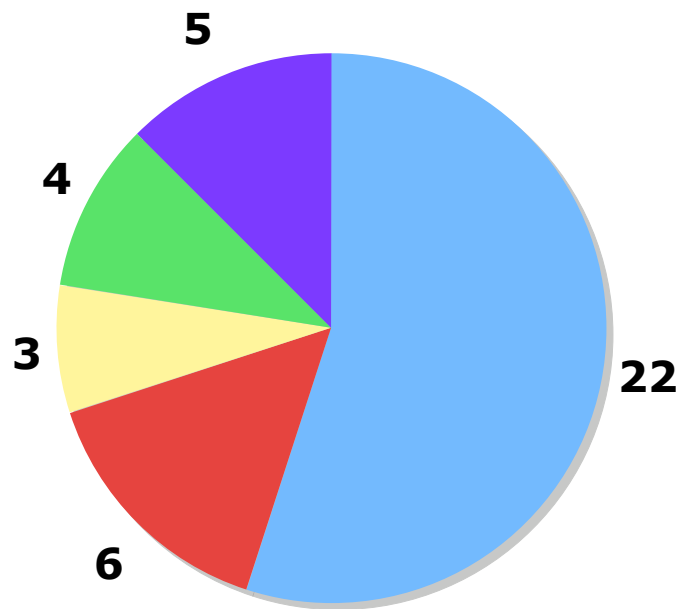
What personal protective equipment (PPE) do you require personnel to wear to enter the facility?



“Relating IACUC Regulations to Zebrafish Facilities”
ZHA Round-Table Discussion held March 16 2010



How do you conduct a census for your zebrafish facility?

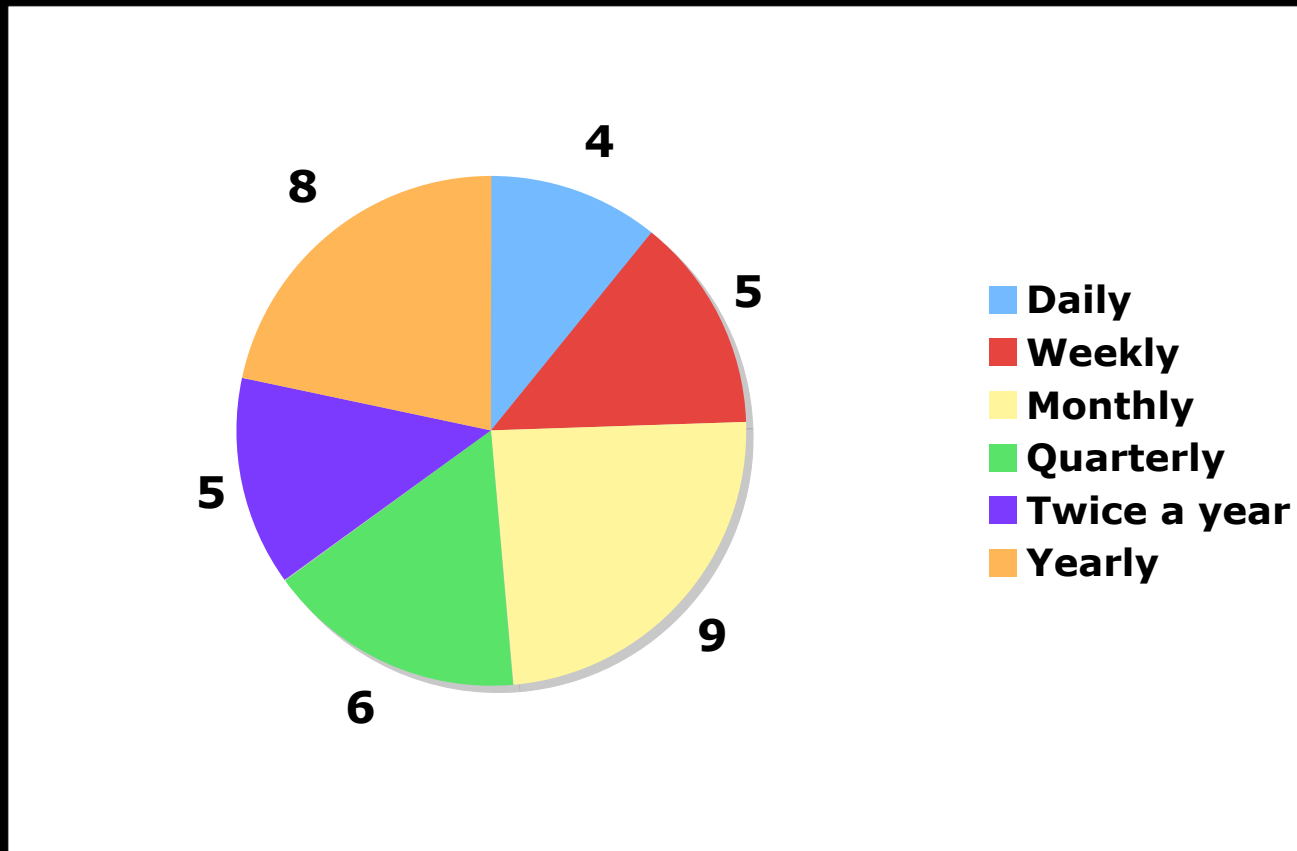


- Estimate based on the # of tanks and standard density
- Individually count each fish in the system
- We do not conduct a census for the facility
- Keep daily records of how many fish enter the system and are removed
- Other

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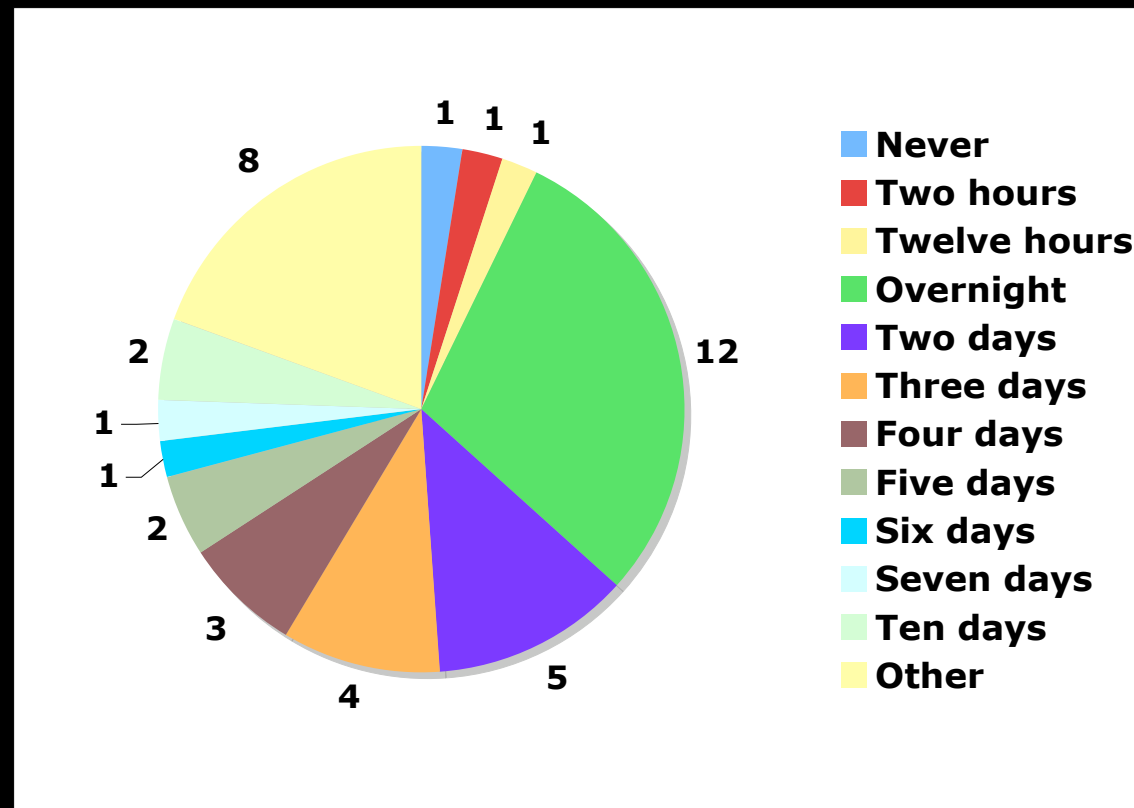
How often do you conduct a census for your zebrafish facility?



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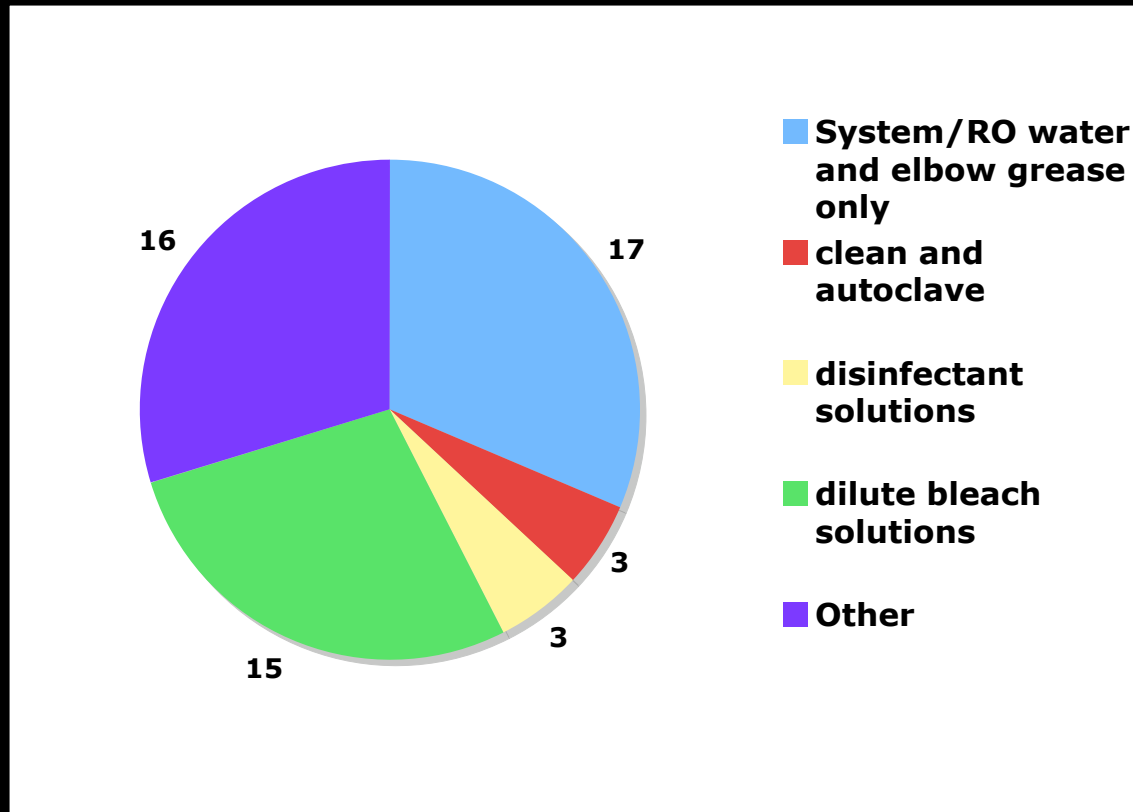
What is the maximum time that an adult fish can be held outside of the system?



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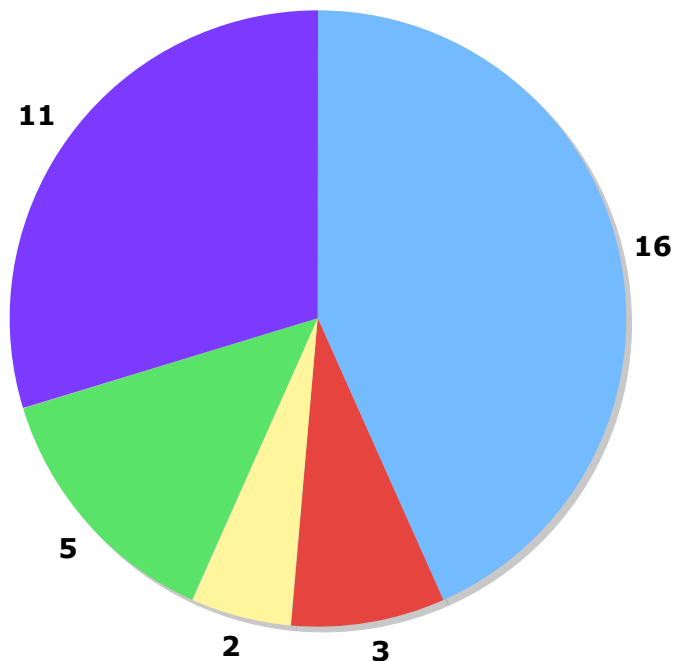
What method do you generally use to clean zebrafish tanks?



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How much does your Institution's animal care staff participate in the care and/or maintenance of your facility?

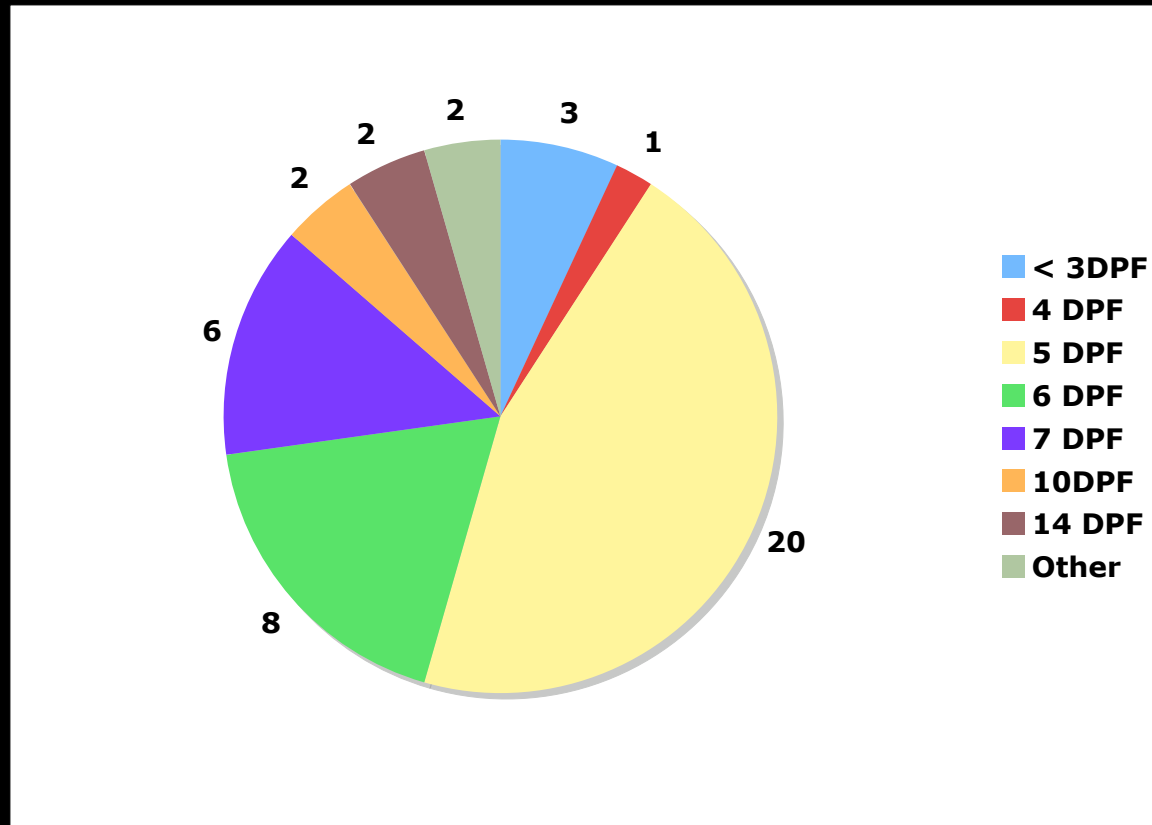


- Not at all. The zebrafish lab is responsible for everything.
- A little. Animal care does some minor tasks.
- Some. Animal care performs some feeding duties.
- A lot. Animal care performs some feeding and maintenance.
- Animal care is completely responsible for the zebrafish facility.

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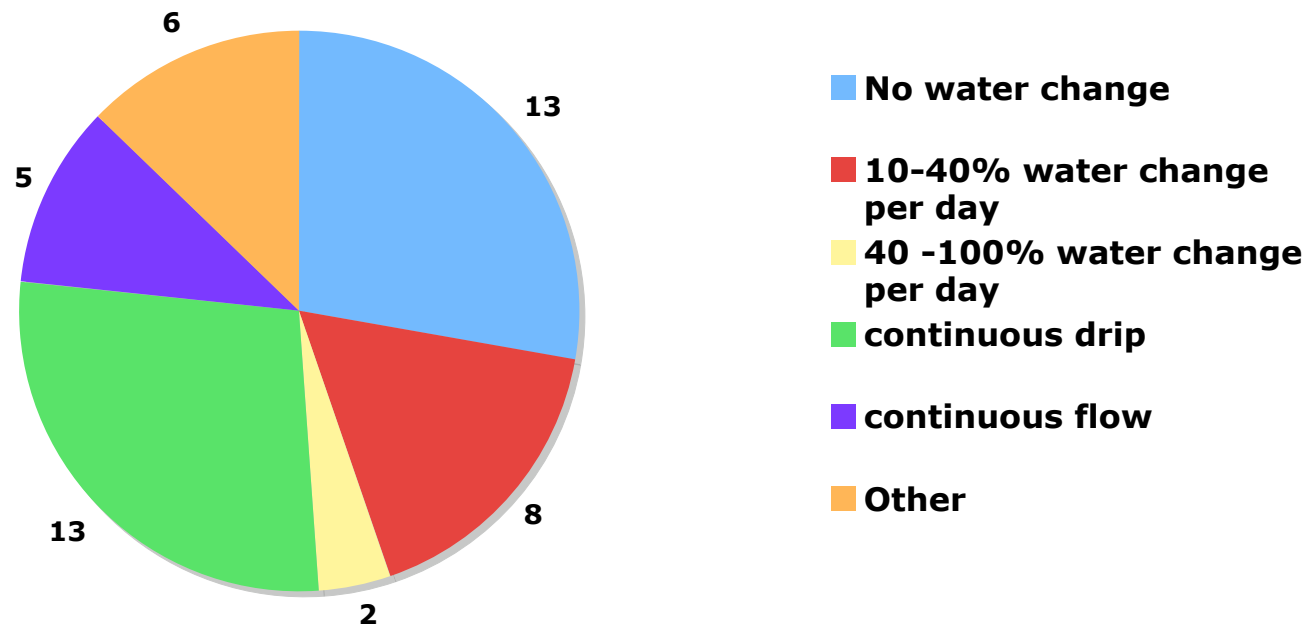
How old are fry when you first put them onto the system?



“Fry Rearing Survey / Discussion”
ZHA Round-Table Discussion held February 25 2009



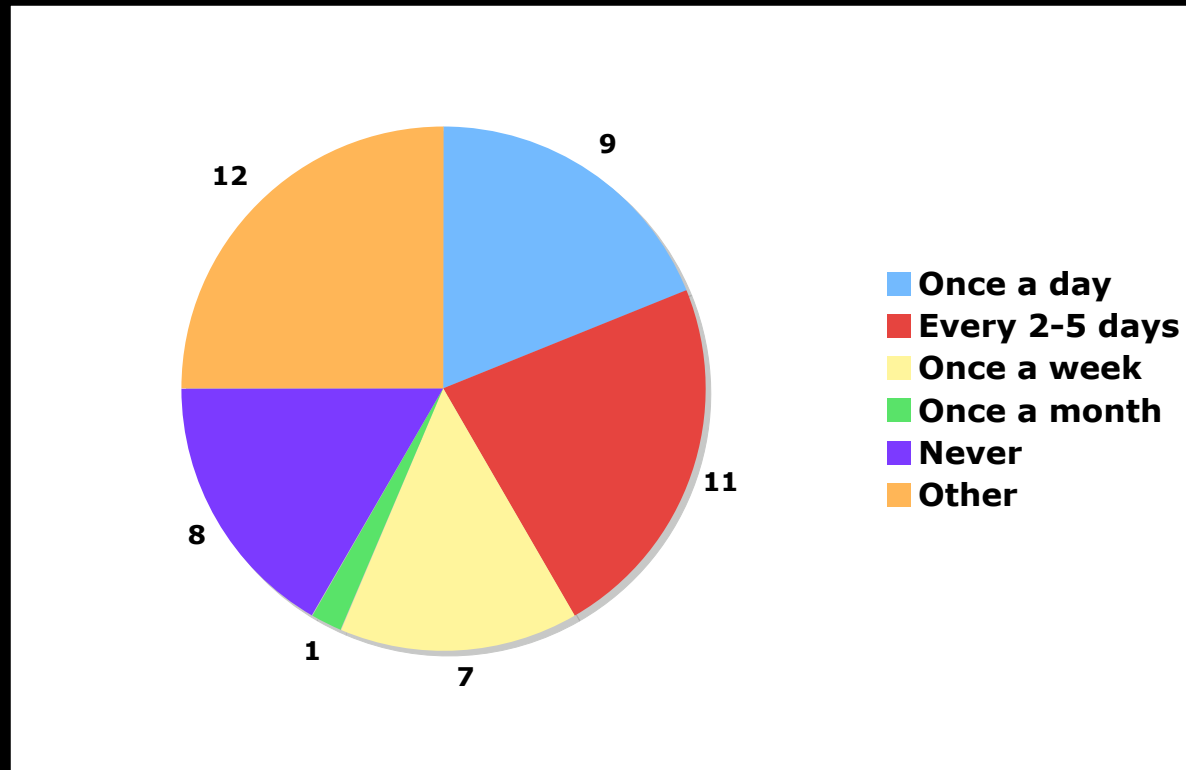
What type of water change regime do you use for fry between 7 and 11 DPF?



“Fry Rearing Survey / Discussion”
ZHA Round-Table Discussion held February 25 2009



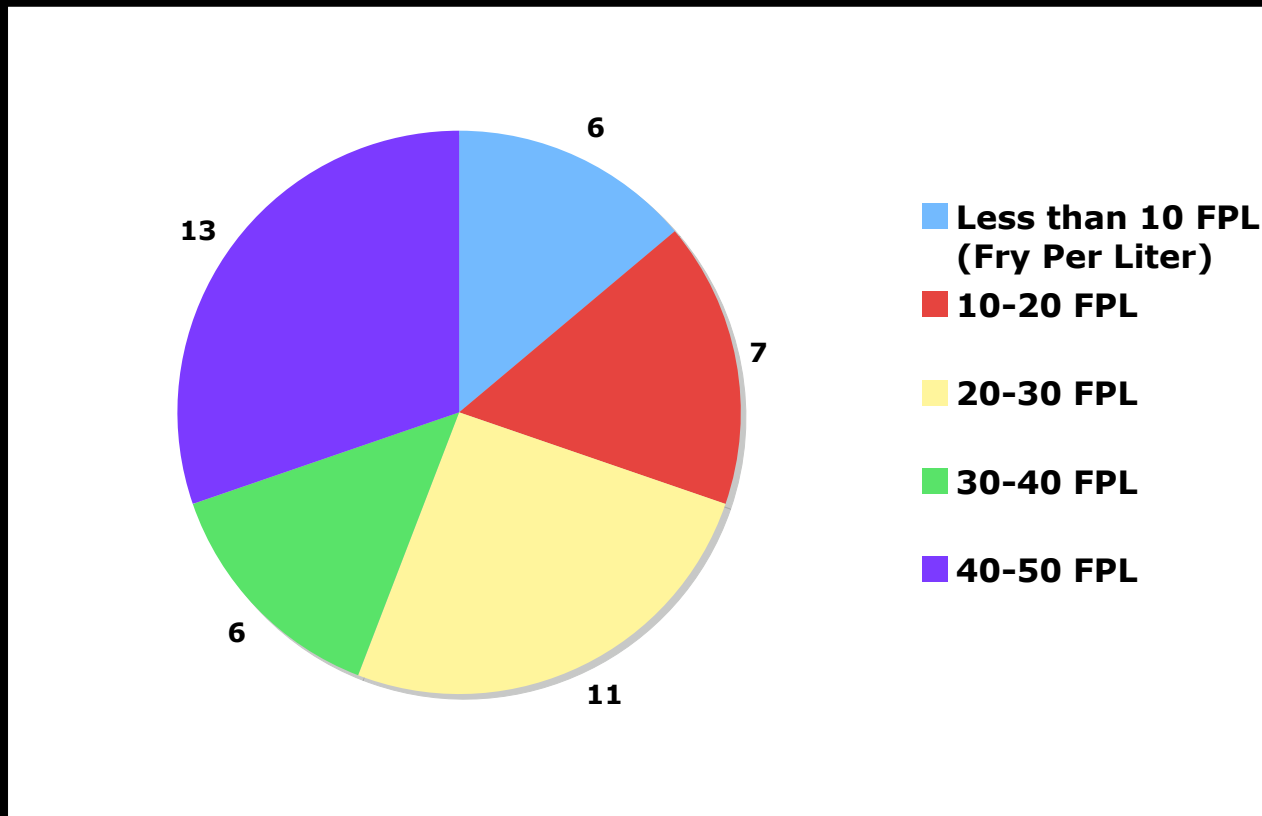
How often do you siphon debris from fry tanks (7-30DPF)?



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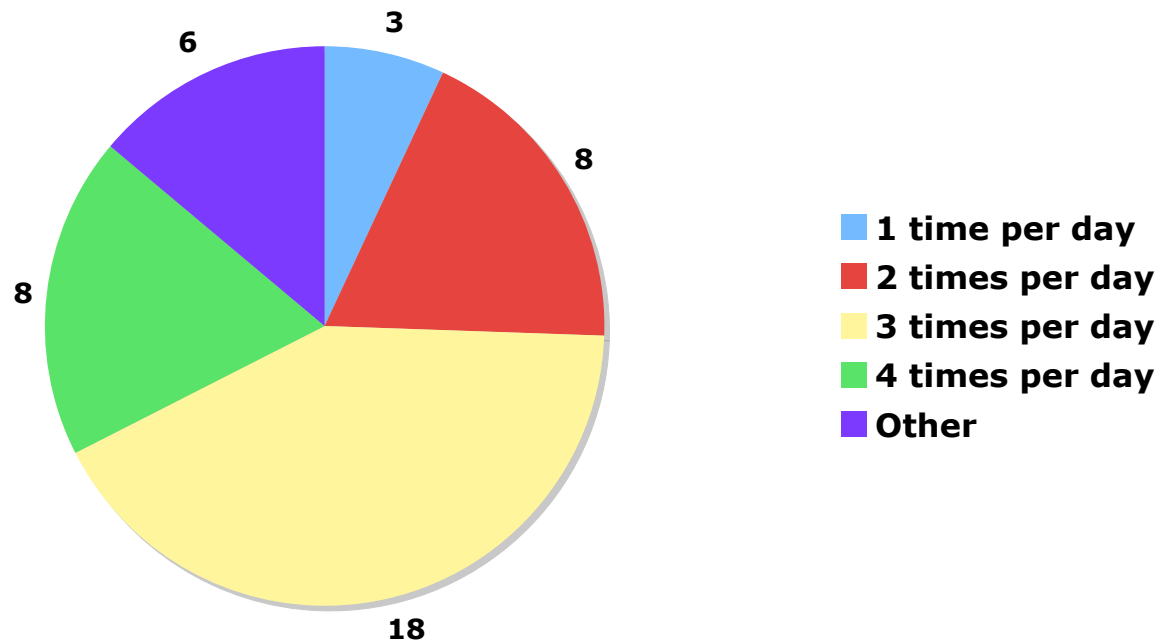
At what density do you keep fry when they are first put onto the system (5-14 DPF)?



“Fry Rearing Survey / Discussion”
ZHA Round-Table Discussion held February 25 2009



How often does your lab feed their fry?



“Fry Rearing Survey / Discussion”
ZHA Round-Table Discussion held February 25 2009



Survey Summary

- High level of variability among labs
- What is the “best” answer?
 - May vary from laboratory to laboratory
- What would standardization look like?

The Future...

More research and peer reviewed publications on all aspects of zebrafish husbandry

- Nutrition (diet)
- Fry care
- Breeding strategies
- Housing (number and sex of fish in a tank)

Acknowledgements

“Relating IACUC Regulations to Zebrafish Facilities”
ZHA Round-Table Discussion held March 16 2010

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2010 ZHA Executive Board

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“Fry Rearing Survey / Discussion”
ZHA Round-Table Discussion held February 25 2009

2009 ZHA Executive Board

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Marie Ortega
Jeffrey Burt
Jason Cockington

Zebrafish Husbandry Association



Questions?

