

PACIFIC LAMPREY ABUNDANCE WITHIN THE REDWOOD CREEK BASIN

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Introduction

- Data on Pacific Lamprey (adult and juveniles) is collected from captures with rotary screw traps.
 - Post spawn adults (trap catches, population abundances)
 - Ammocoetes (trap catches)

Rotary Screw Trap



Smolt Processing Station



Adult and Juvenile Pacific Lamprey

Adult



Ammocoete

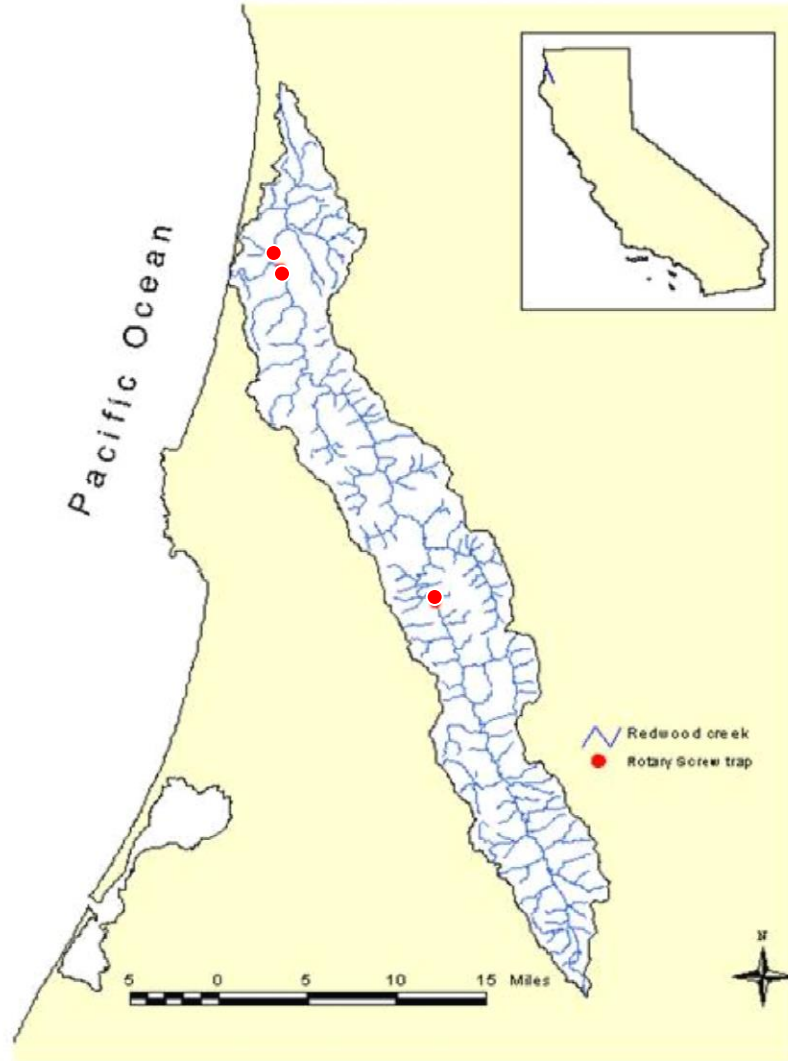


Adult on Redd



- Data is collected at three locations within the Redwood Creek basin:
 - Mid to upper Redwood Cr (RM 33): 14 consecutive years.
 - Lower Redwood Creek (RM 4): 10 consecutive years
 - Prairie Creek (RM 0.01): 3 consecutive years

Redwood Creek



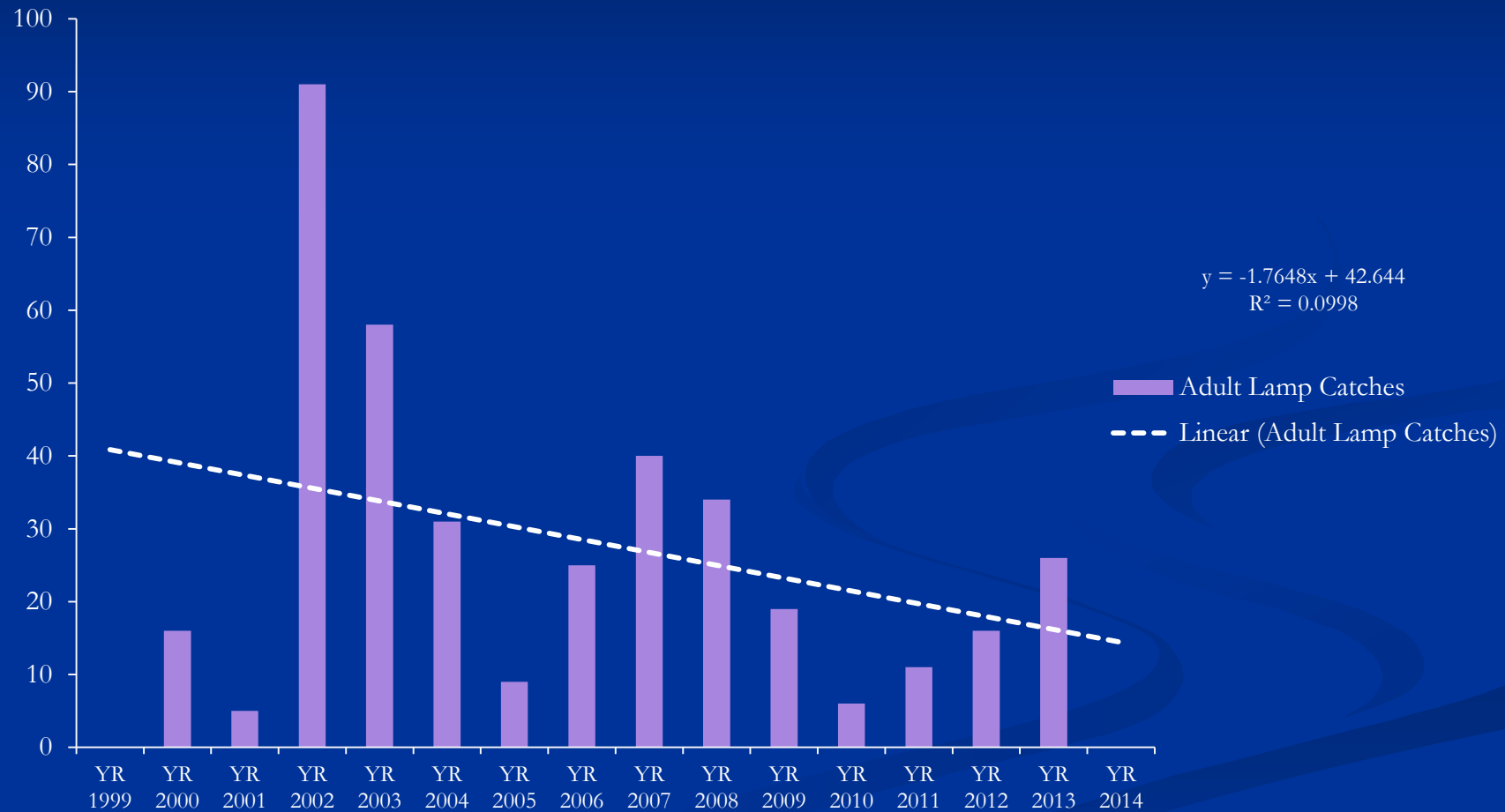
Smolt Trap Operations

- Smolt traps operate from early to late March to late August/early to mid September
- Traps operate 24 hrs/day, 7 days/week

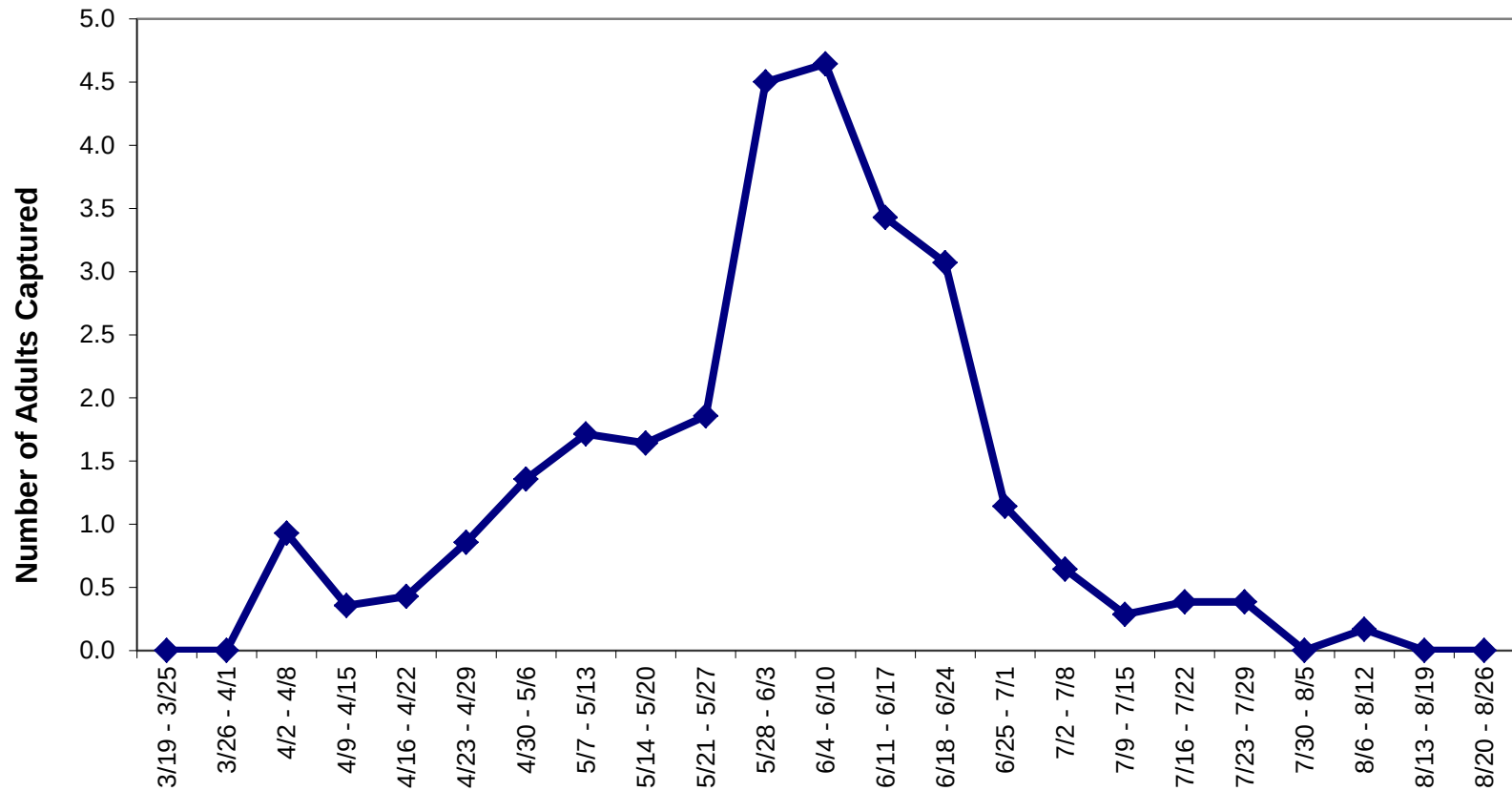
Objectives

- Quantify abundance of post spawn adults
 - Trap catches (index of abundance)
 - Mark/recapture experiments: dorsal fin snip, pit tags (recent)
- Quantify abundance of downstream migrating ammocoetes (index of abundance)
- Collect tissue samples from adults for genetic analysis

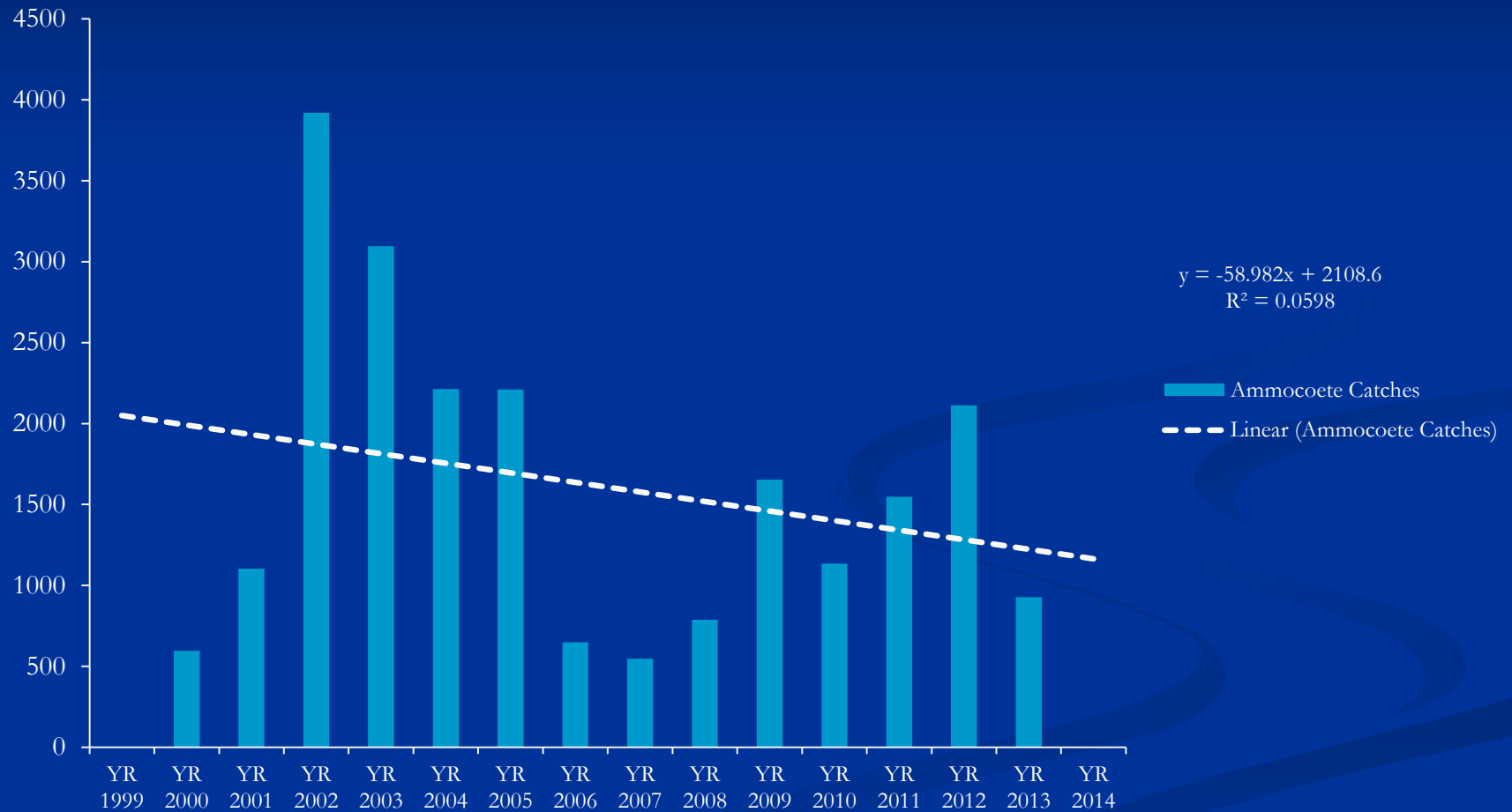
Upper Redwood Creek



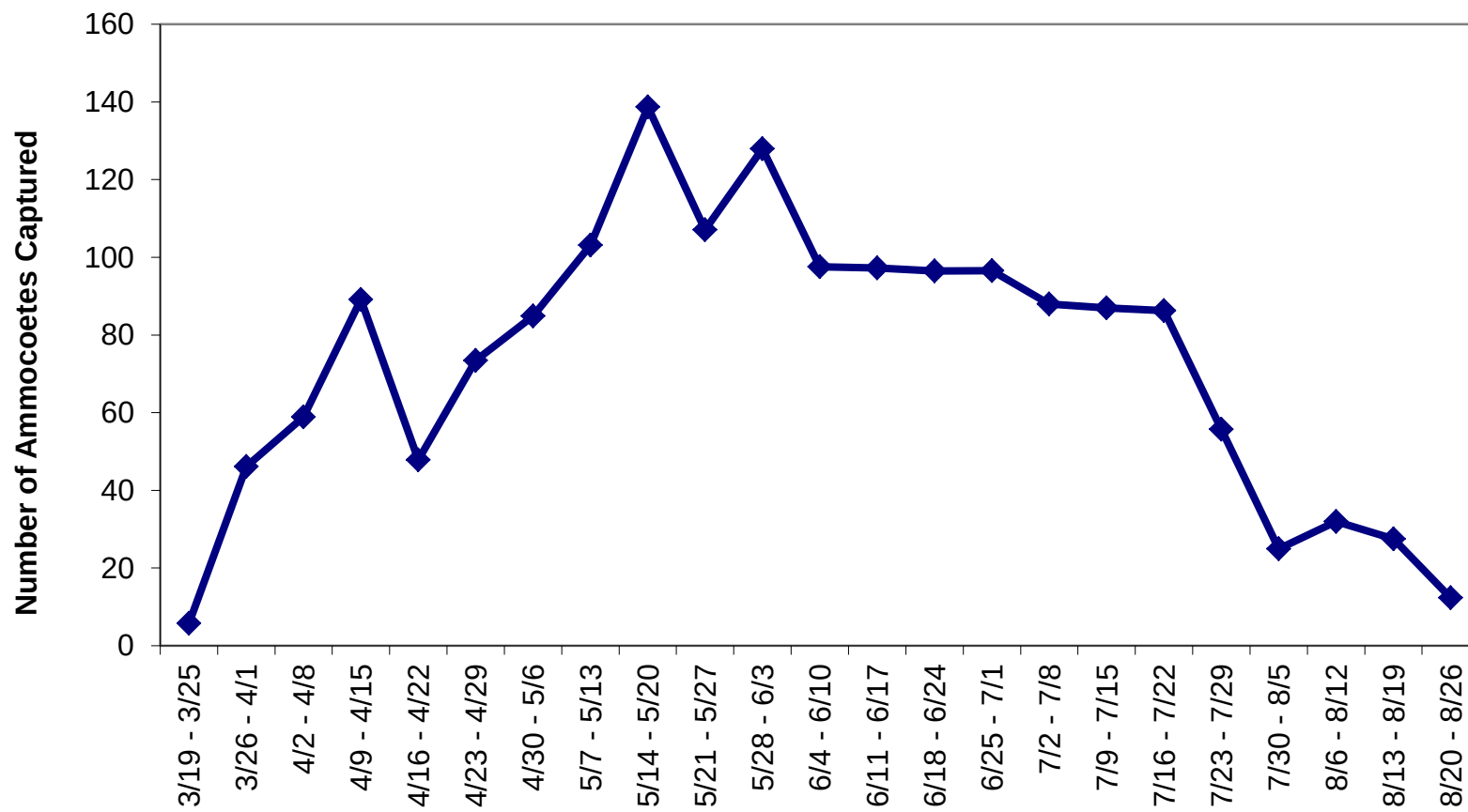
Up. RC (Avg. Adult Catches)



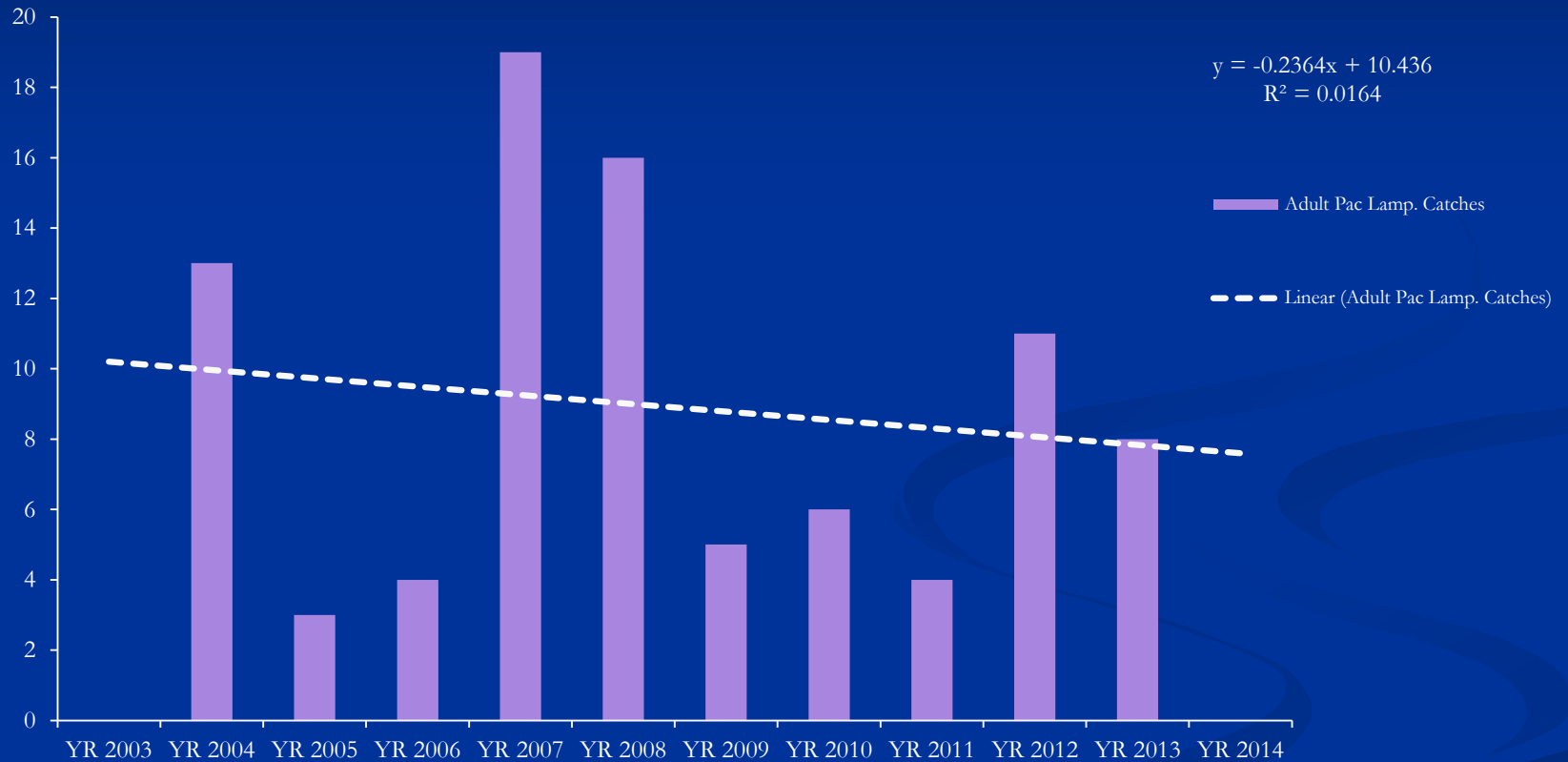
Up RC (ammocoete catches)



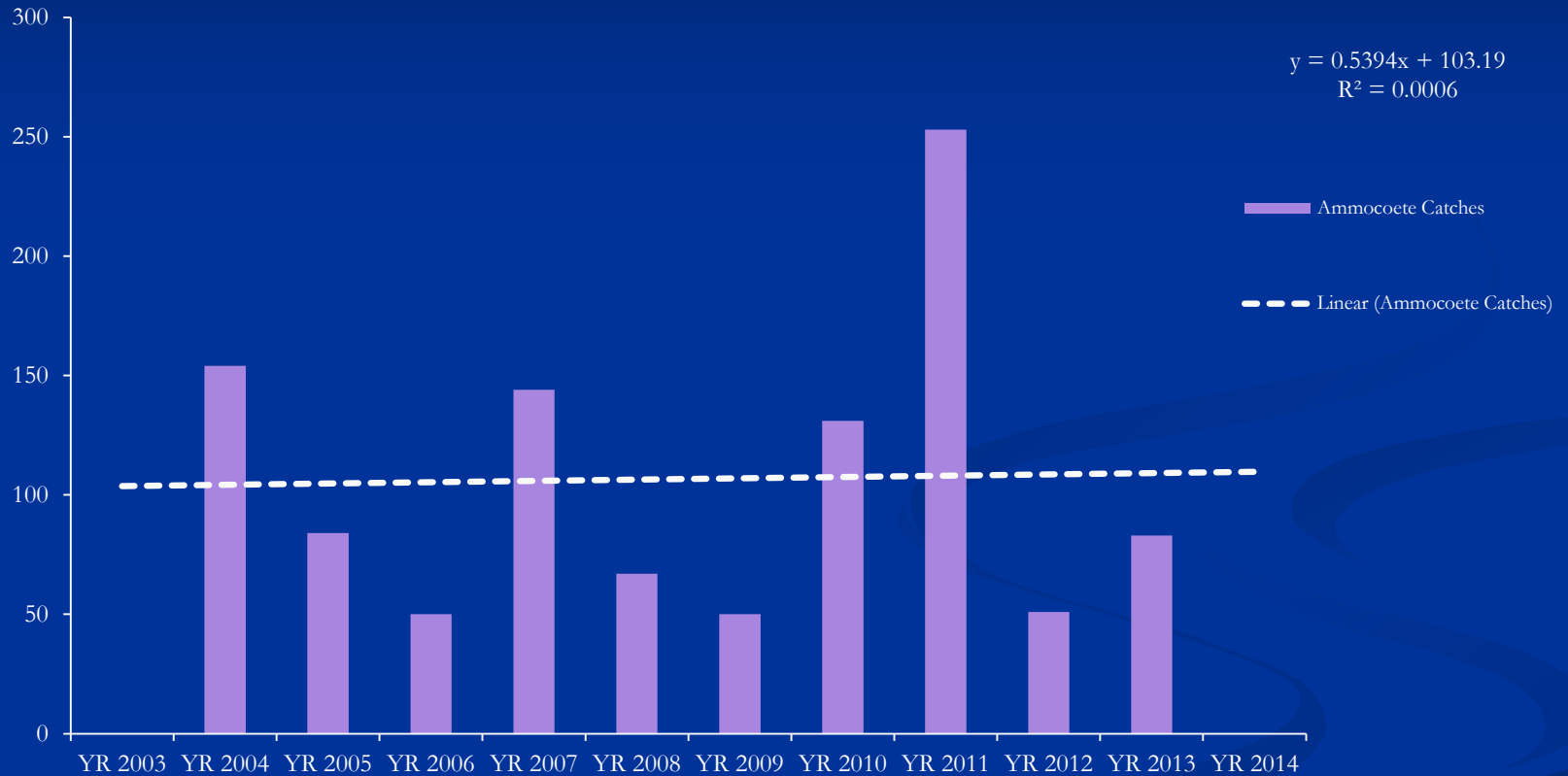
Up. RC (Avg. Ammocoete Catches)



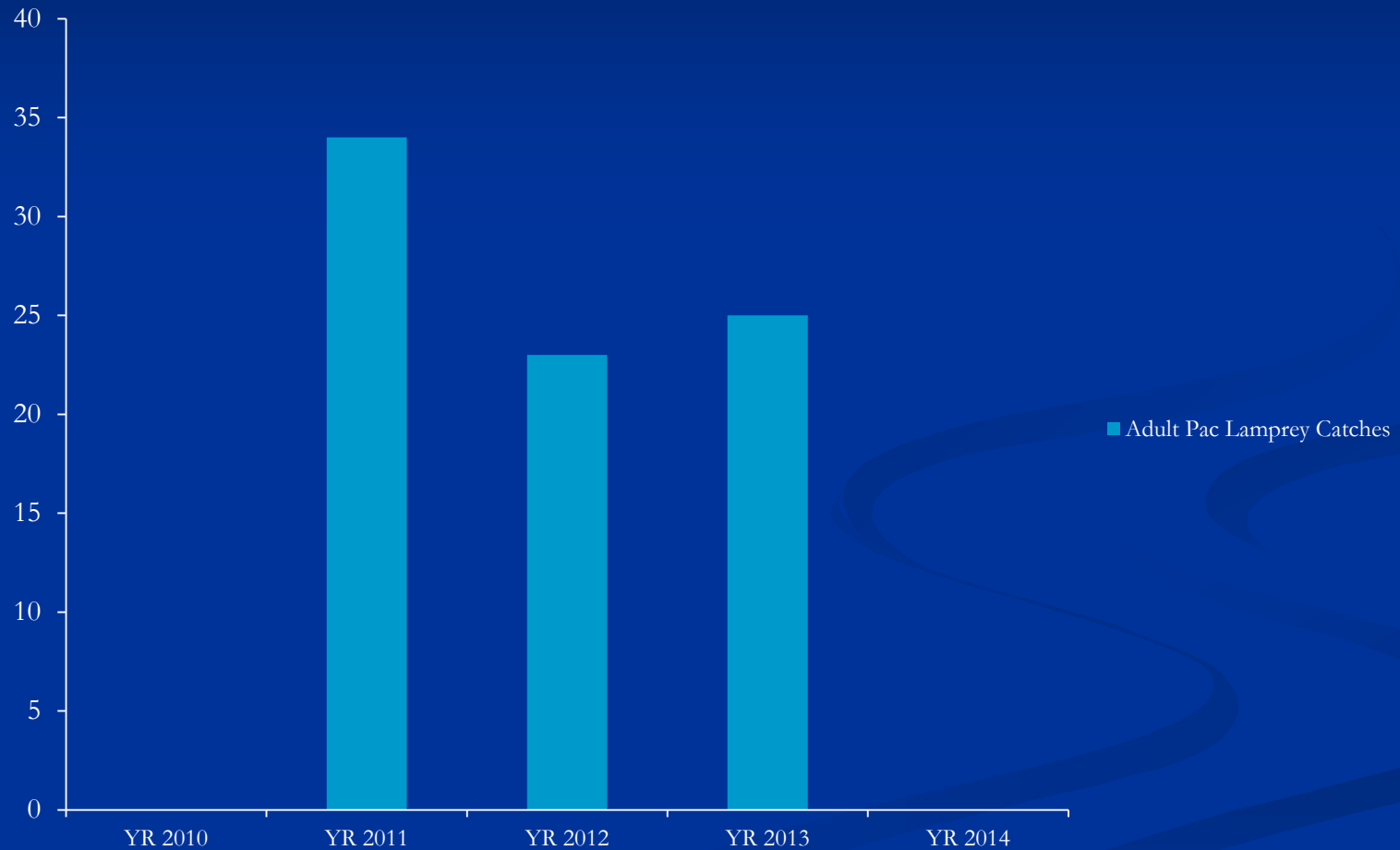
Lower RC (Adult Catches)



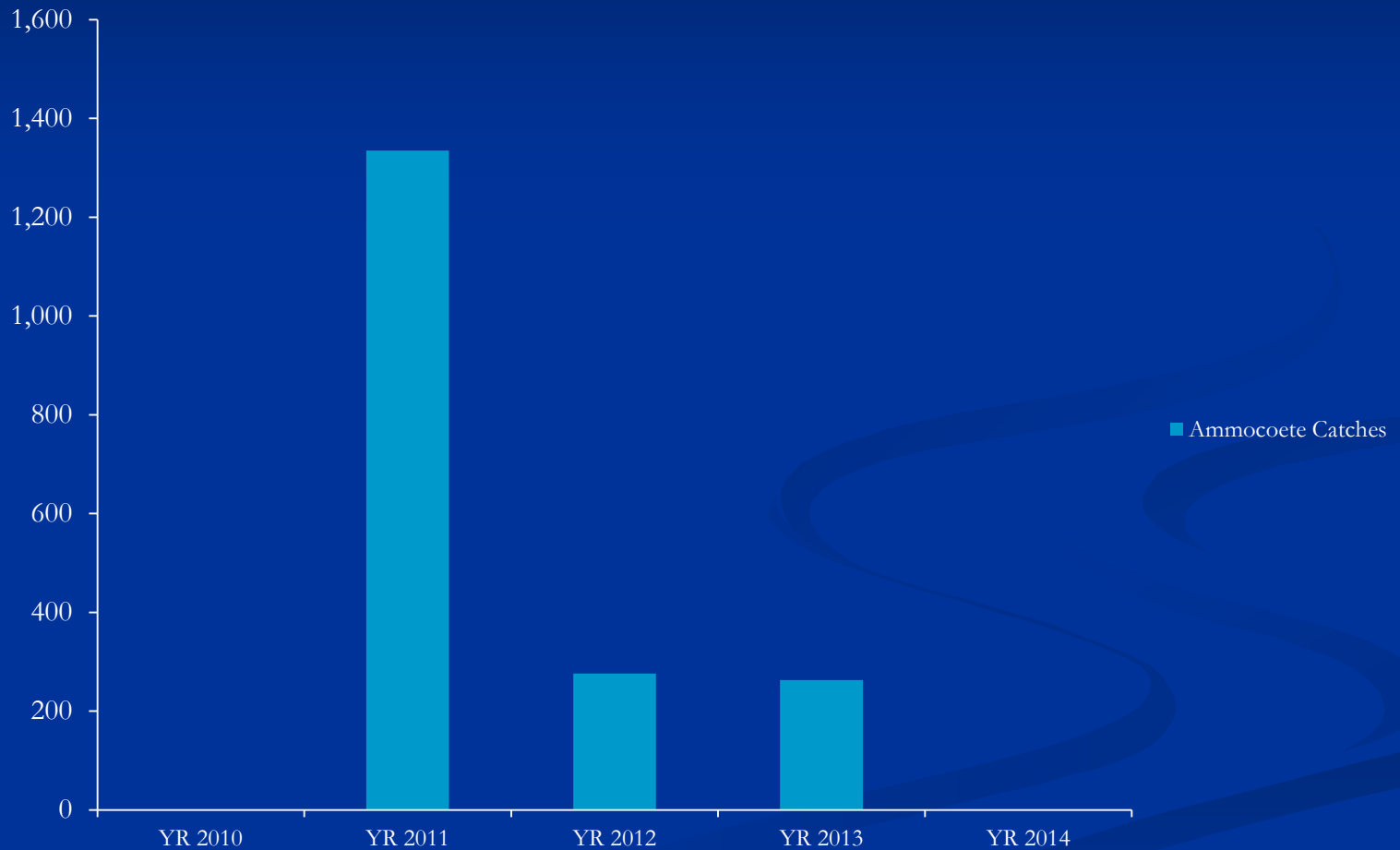
Lower RC (Ammocoete Catches)



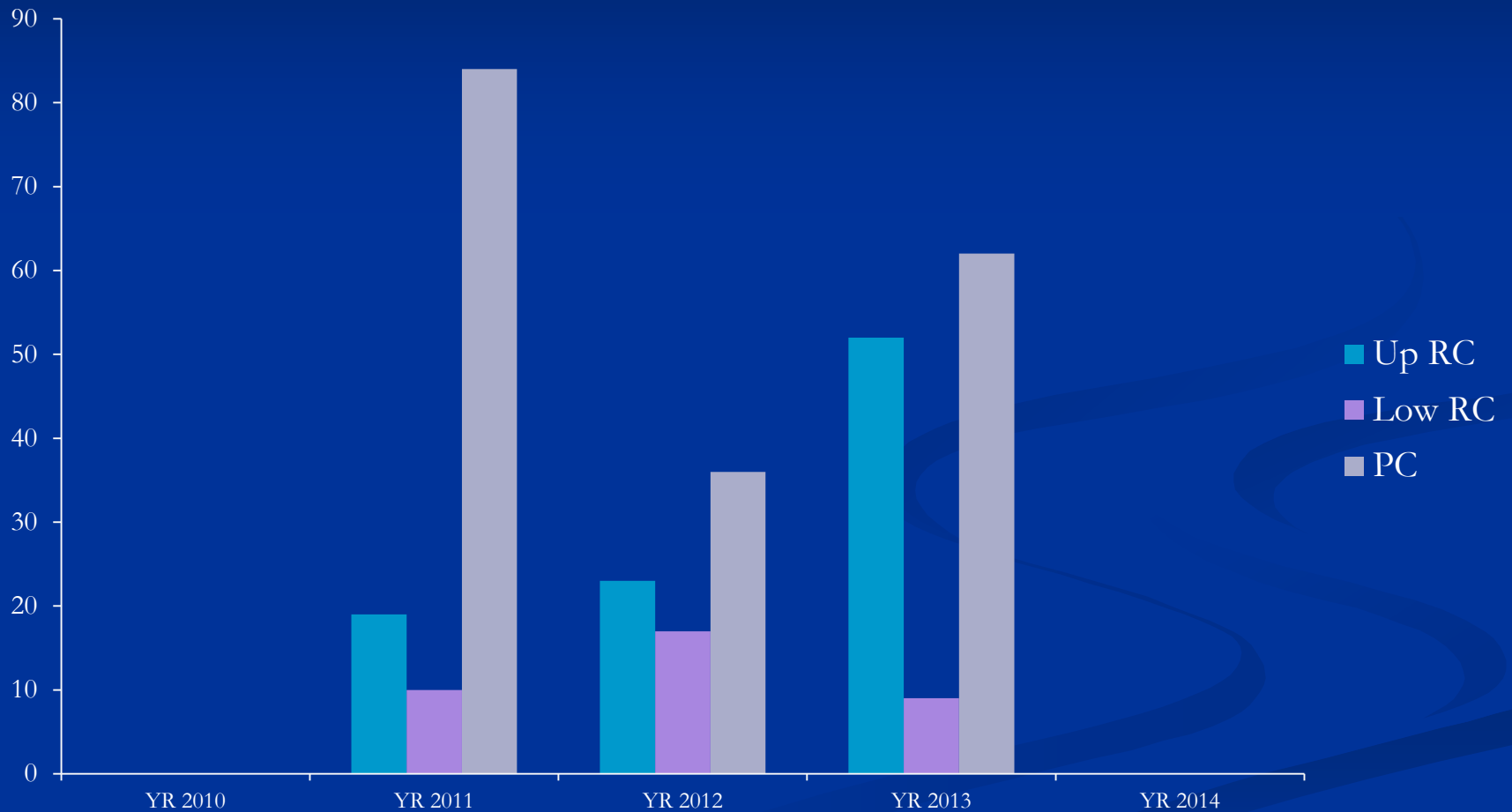
Prairie Creek (Adult Pac. Lamprey Catches)



PC (Ammocoete Catches)



Population Abundances*



Summary

■ Trap Catches of Adults

- Up RC: ranged from 5 to 91 (over 14 Yrs)
- Low RC: ranged from 3 to 19 (over 10 Yrs)
- PC: ranged from 23 to 34 (over 3 Yrs)

■ Population Abundances of Adults

- Up RC: ranged from 19 to 52 (Yrs 2011-2013)
- Lower RC: ranged from 9 to 17 (Yrs 2011-2013)
- PC: ranged from 36 to 84 (Yrs 2011-2013)

Summary

- Trap Catches of Ammocoetes
 - Up RC: ranged from 547 to 3,920 (over 14 Yrs)
 - Low RC: ranged from 50 to 253 (over 10 Yrs)
 - PC: ranged from 263 to 1,335 (over 3 Yrs)

Future Work

- Continue sampling and using mark/recapture for post spawn adults.
- Continue using the DIDSON in Mad River, lower Redwood Creek, and upper Redwood Creek to enumerate population abundance of upstream migrating adults.
 - Compare upstream counts with post spawn abundances.