Exploratory figures for CNHS

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Notes for Mike:

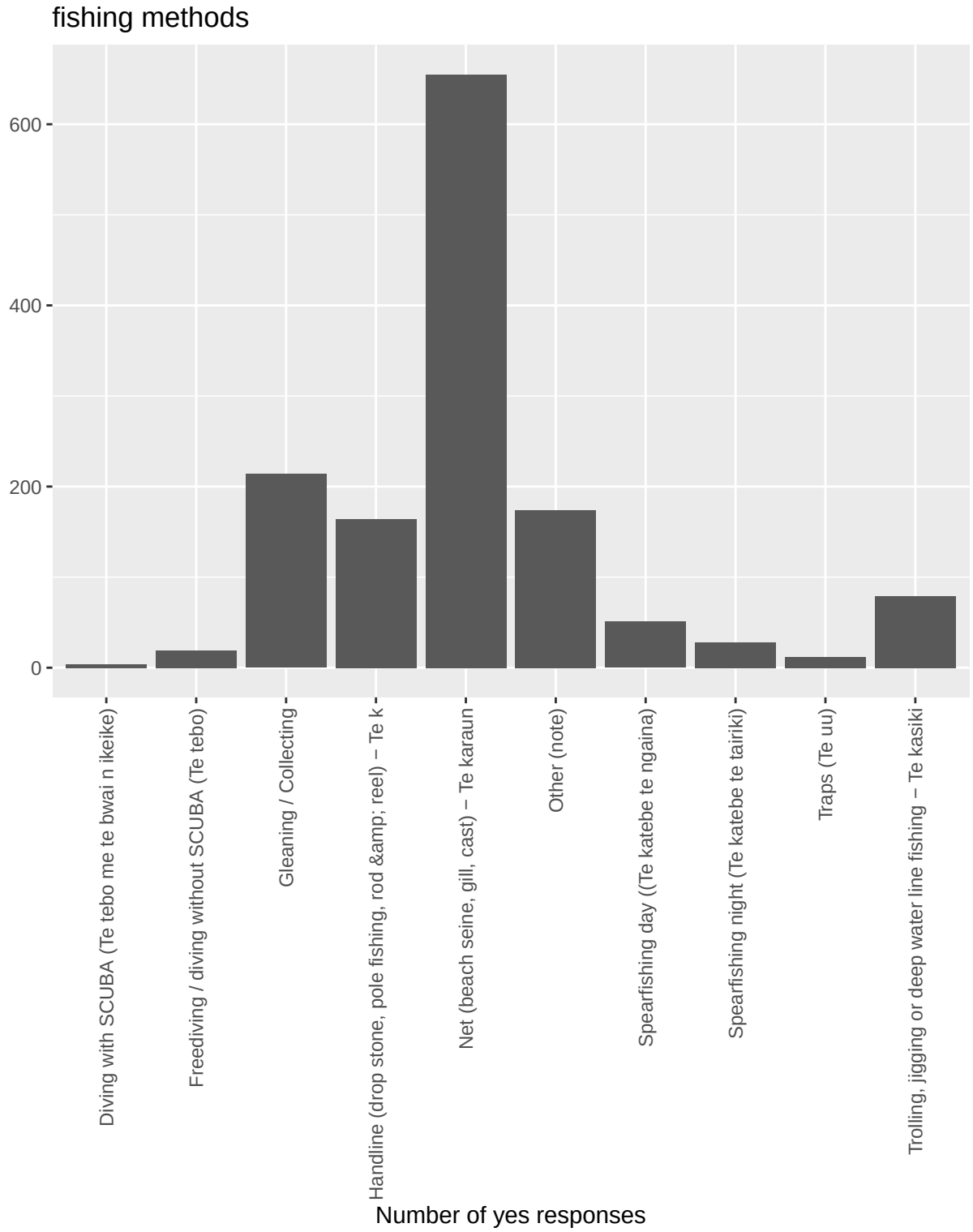
- Is it correct to remove the 0/1 columns in the market Survey data?
- Is there a way to automate this process on your end? So that code still works with new data
- Where is the market availability data that we had in the last iteration?
- [name of product]_roster is the availability data
- What is the meaning of NA in the multiselect variable columns?
- "." and ".a" in STATA both mean missing. Refer to Mike's May 27 email for example (and to check for consistency with R)
- Why does VRS have household info and anemia info?
- Why are these output as different files (vrs, market, etc. each broken into multiple separate files)
- It is easiest to have the fewest number possible
- Are they going to translate the HIES iKiribati responses?
- Variable labels are cut off (how do we get the full answers back?) see: var_labels
- How to standardize units when none is given (e.g., question == Travel time outside boundary in outsideRoster dataset includes "12", "3", "30 minutes", "1 hour", etc)
- Is a response of "zero" the same as blank response?
- What's the difference between interview__key and interview__id? Currently using both to join eventRoster, fishRoster, etc with vrs data to get island information

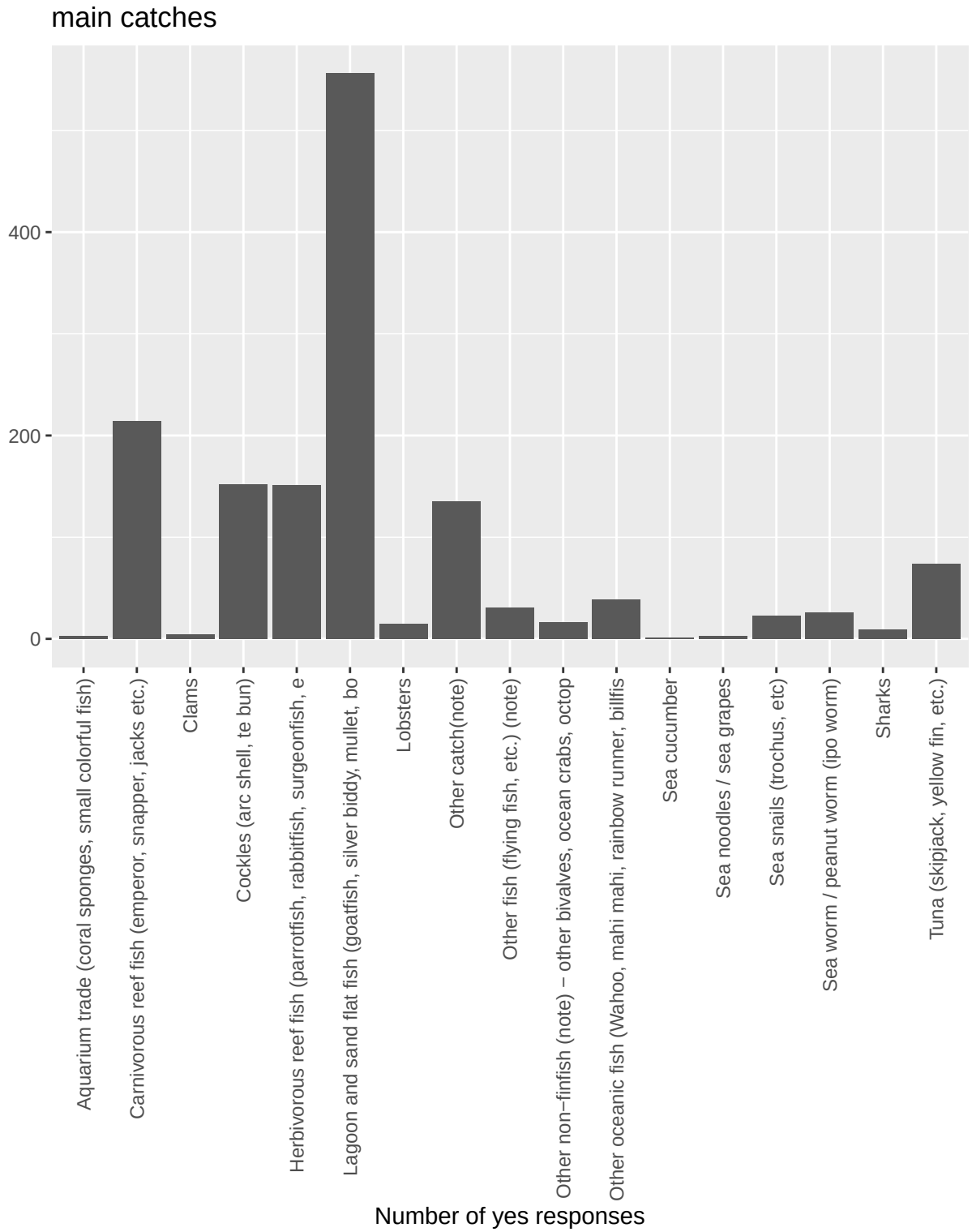
Suggested path forward:

1. Write out tidy versions of each data set and share csv
2. Write functions to visualize each question type:
    - Multi- and single-select, produce bar chart
    - Integer, produce bar chart
    - Continuous, produce histogram and (TBD: box and whisker)
    - Free response, compile unique answers with unique IDs for translation, question, island, possibly role
3. Loop through data and produce pdf of all plots
4. TBD: Start to create summaries by village/island

Fisheries data

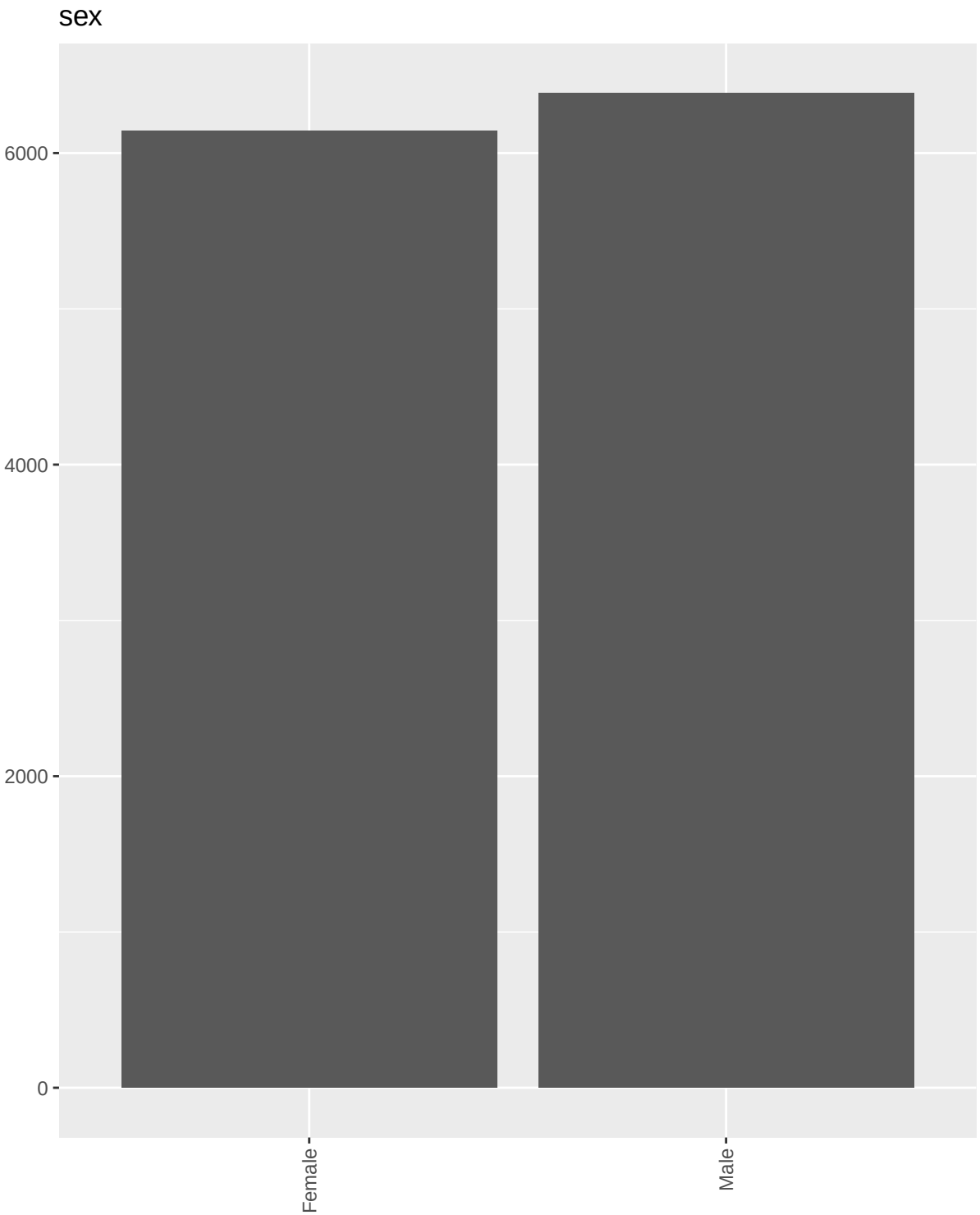
Multi-response questions

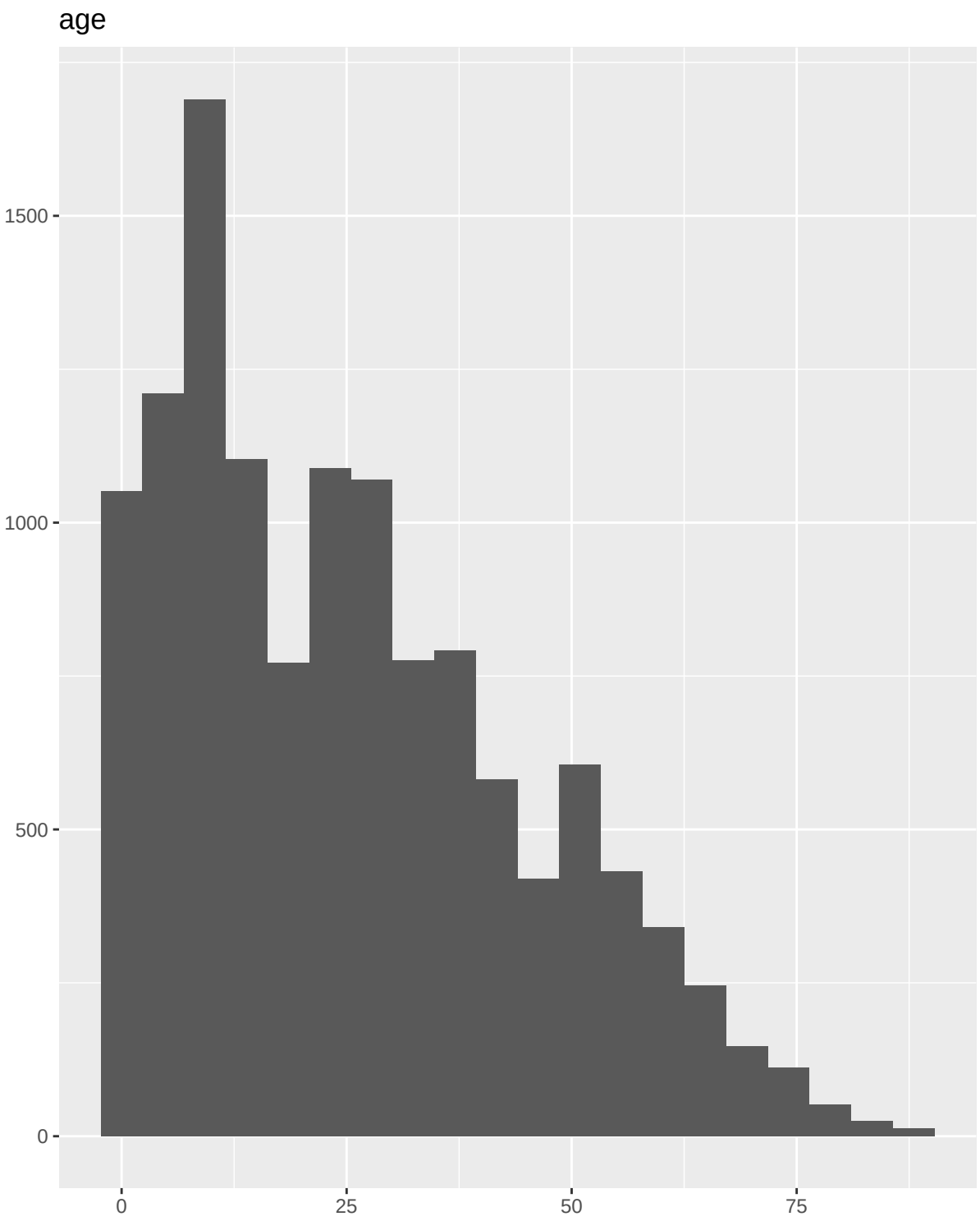


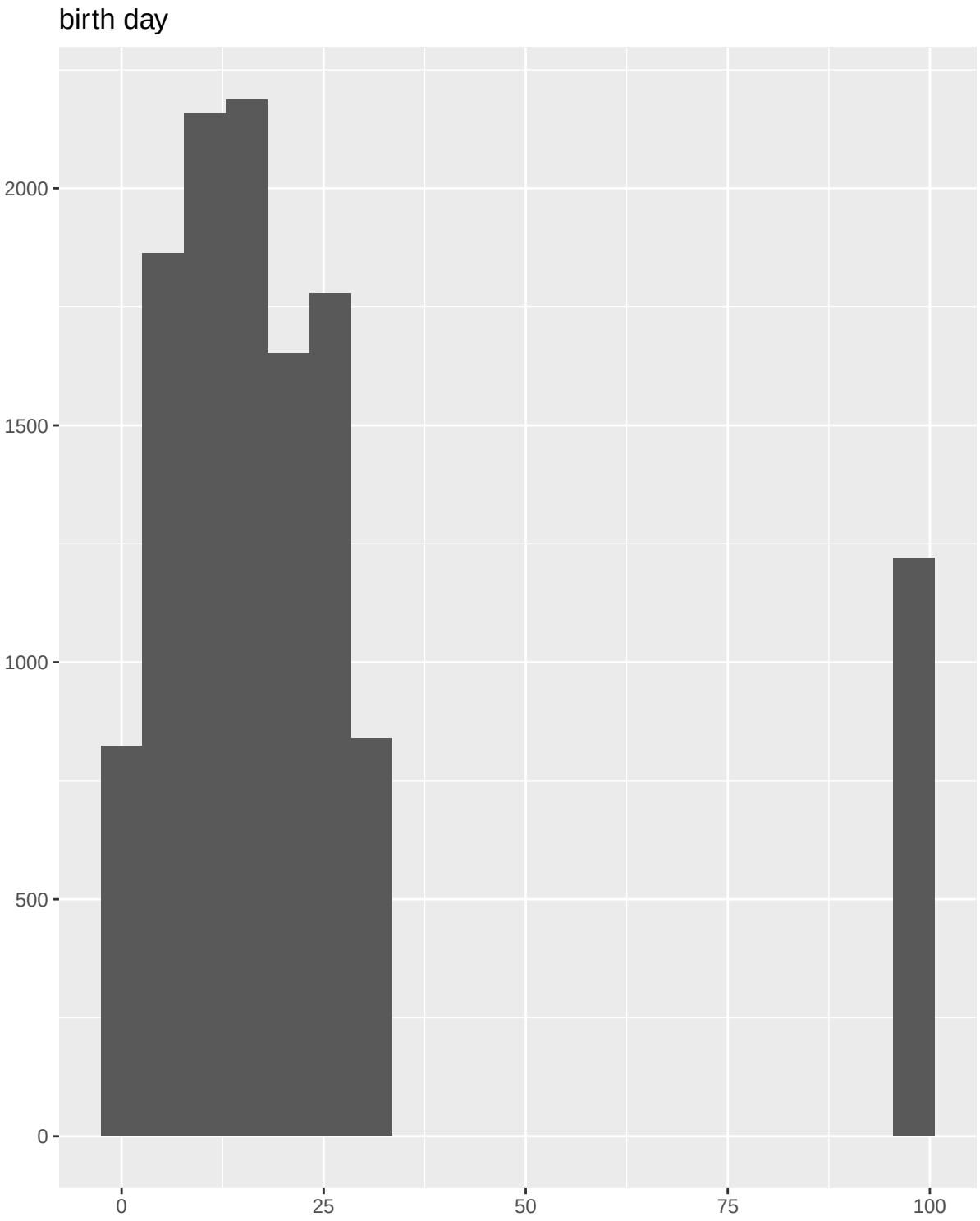

main catches
400
200
0
Aquarium trade (coral sponges, small colorful fish)
Carnivorous reef fish (emperor, snapper, jacks etc.)
Clams
Cockles (arc shell, te bun)
Herbivorous reef fish (parrotfish, rabbitfish, surgeonfish, e
Lagoon and sand flat fish (goatfish, silver biddy, mullet, bo
Lobsters
Other catch(note)
Other fish (flying fish, etc.) (note)
Other non−finfish (note) – other bivalves, ocean crabs, octop
Other oceanic fish (Wahoo, mahi mahi, rainbow runner, billfis
Sea cucumber
Sea noodles / sea grapes
Sea snails (trochus, etc)
Sea worm / peanut worm (ipo worm)
Sharks
Tuna (skipjack, yellow fin, etc.)
Number of yes responses

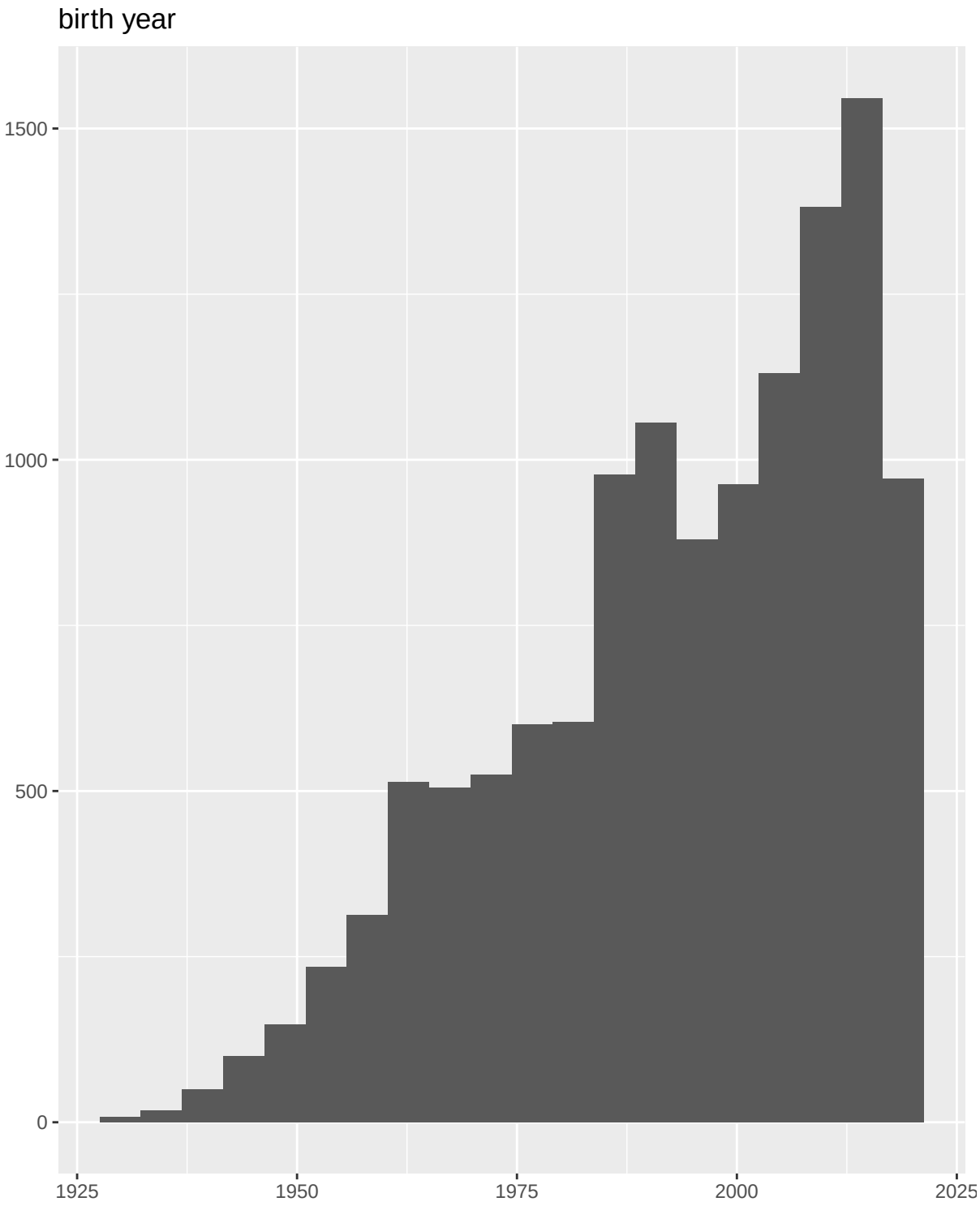
Fisheries continued...

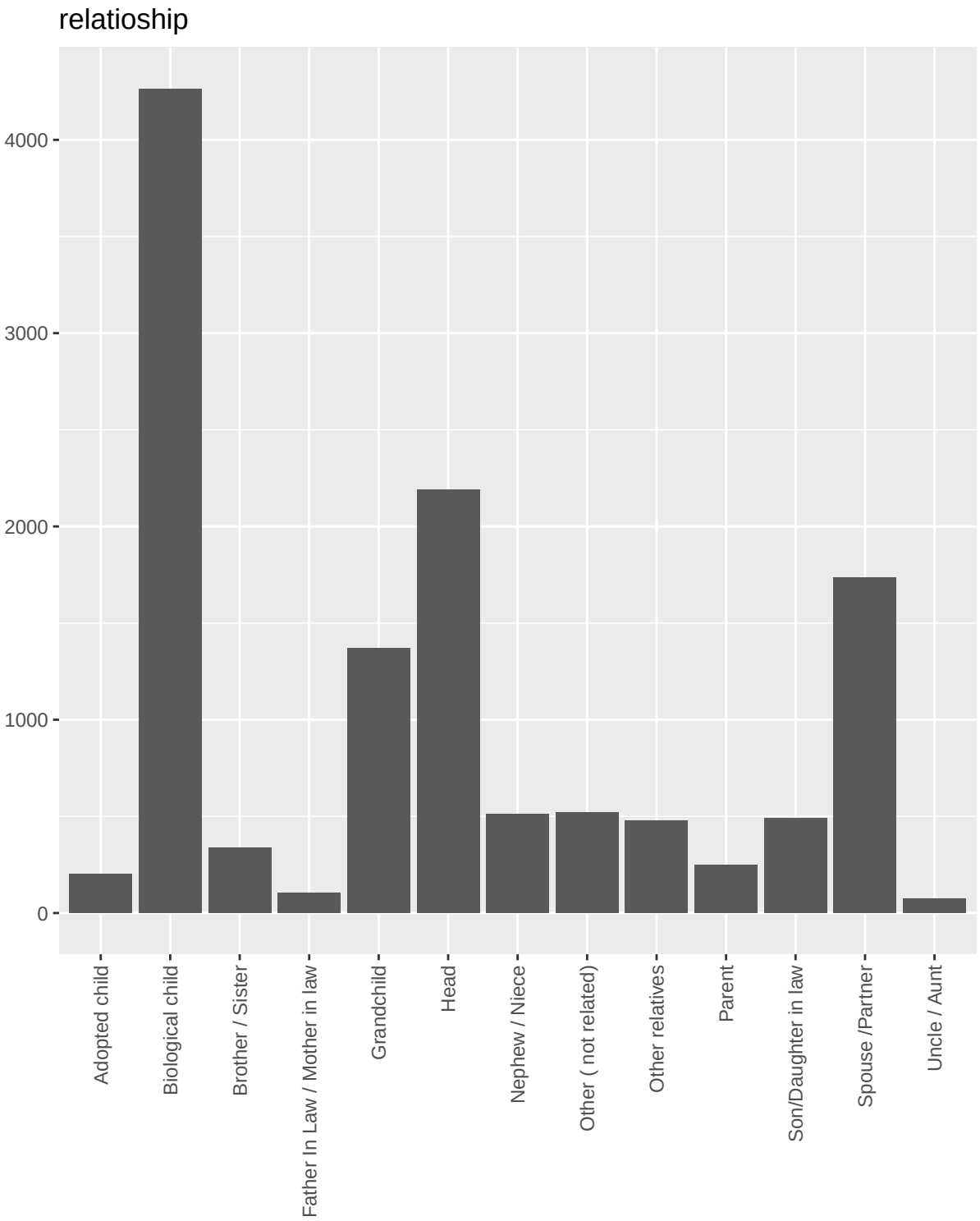
Single response questions

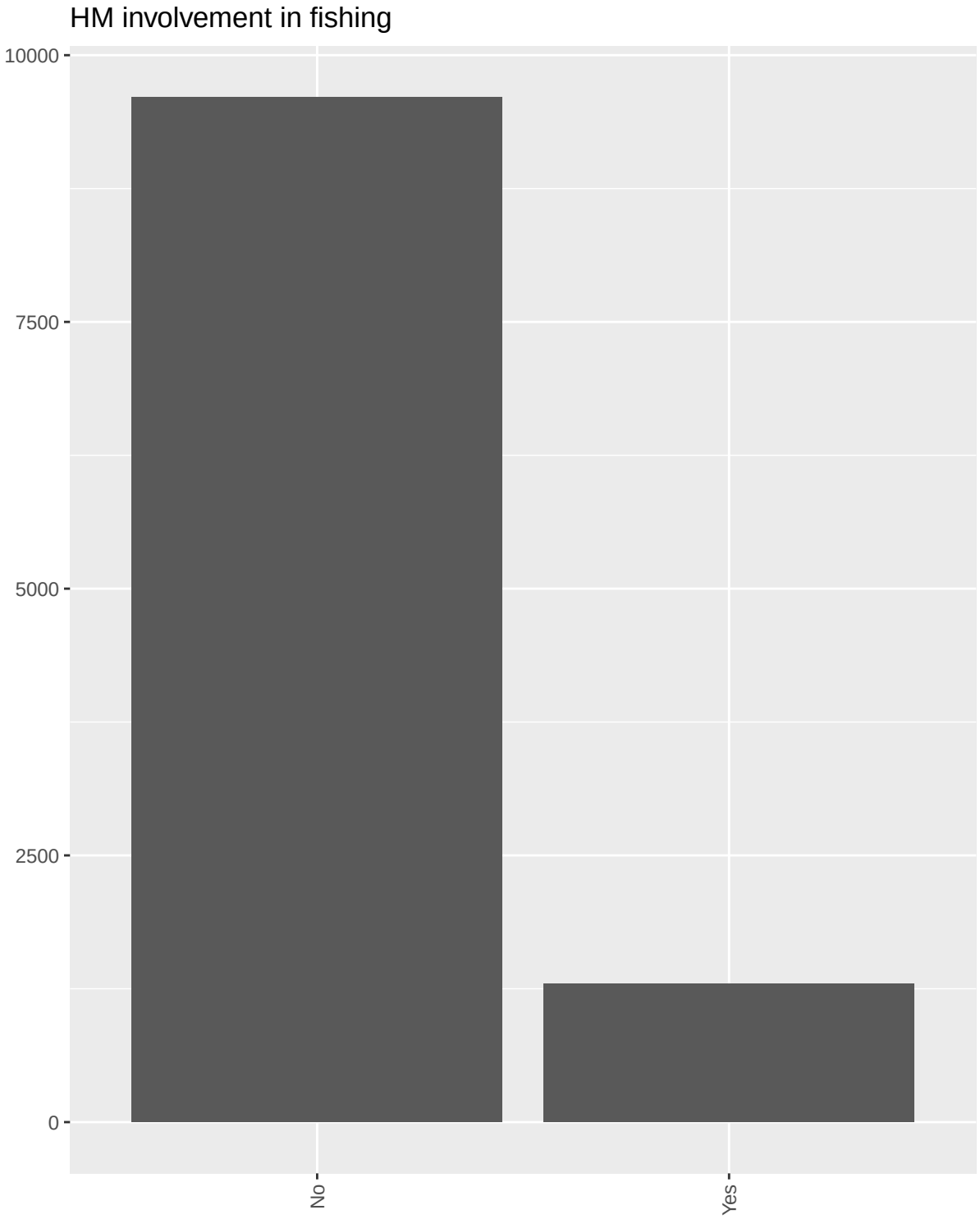


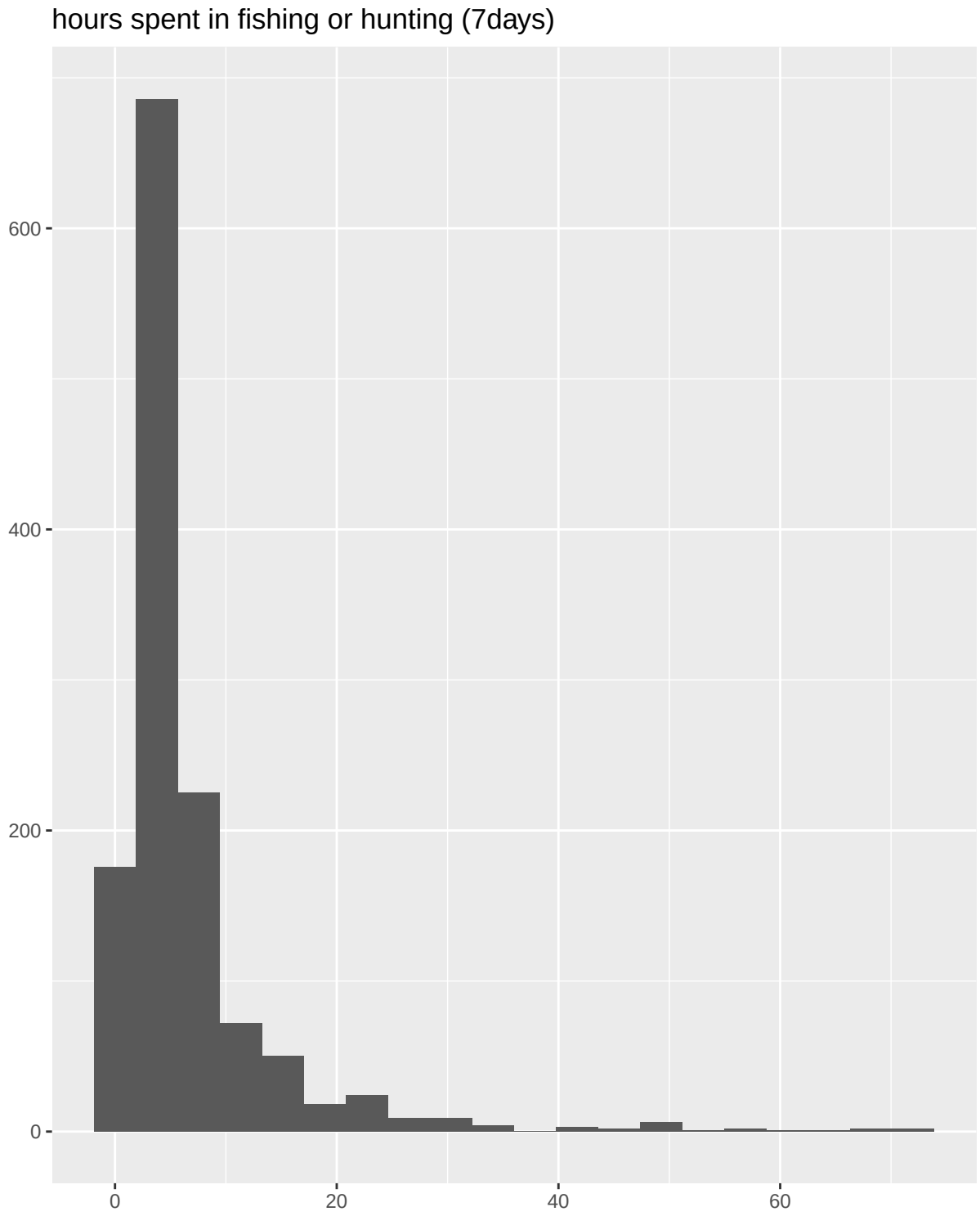

age
1500
1000
500
0
0
25
50
75

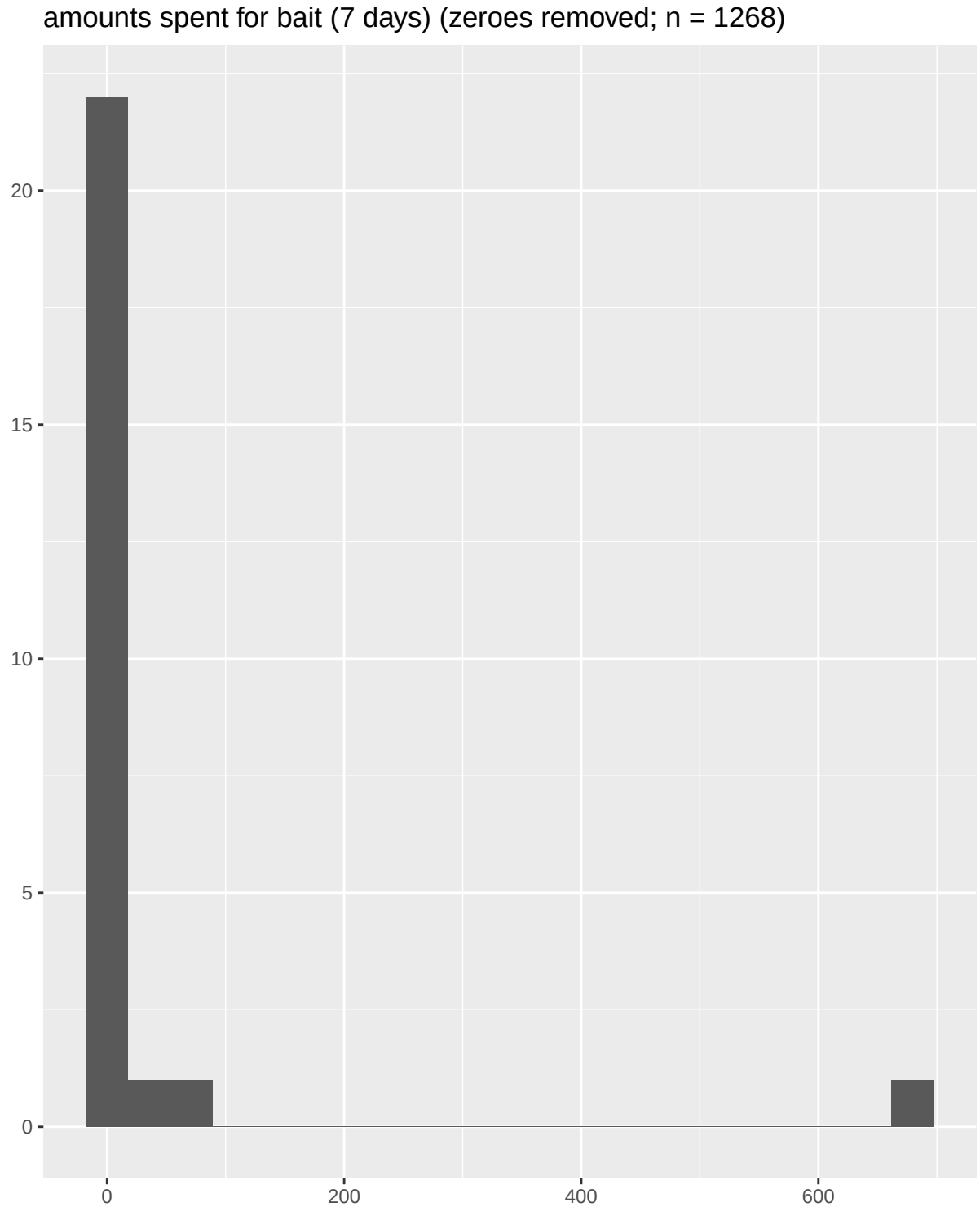

birth day
2000
1500
1000
500
0
0
25
50
75
100

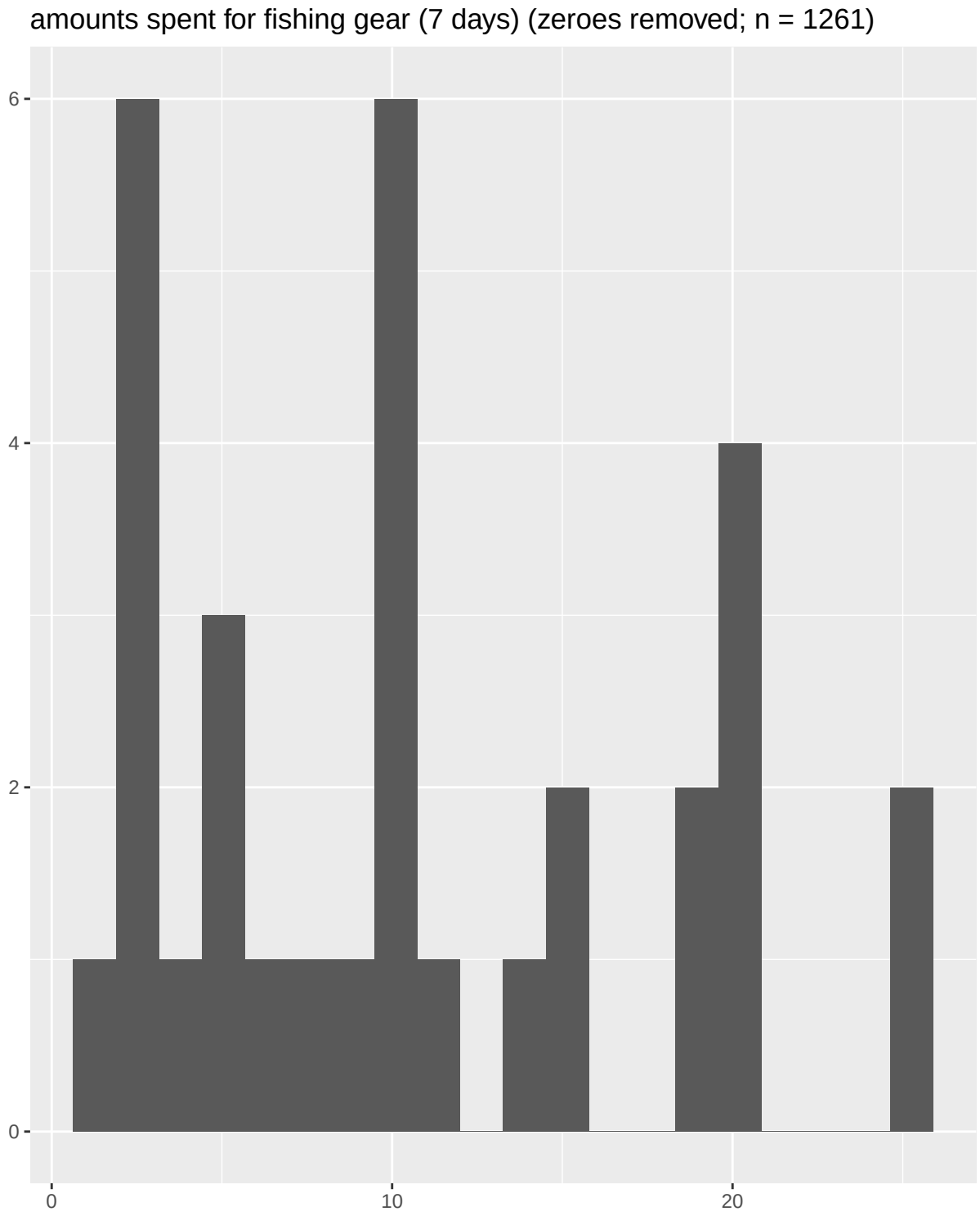

birth year
1500
1000
500
0
1925
1950
1975
2000
2025

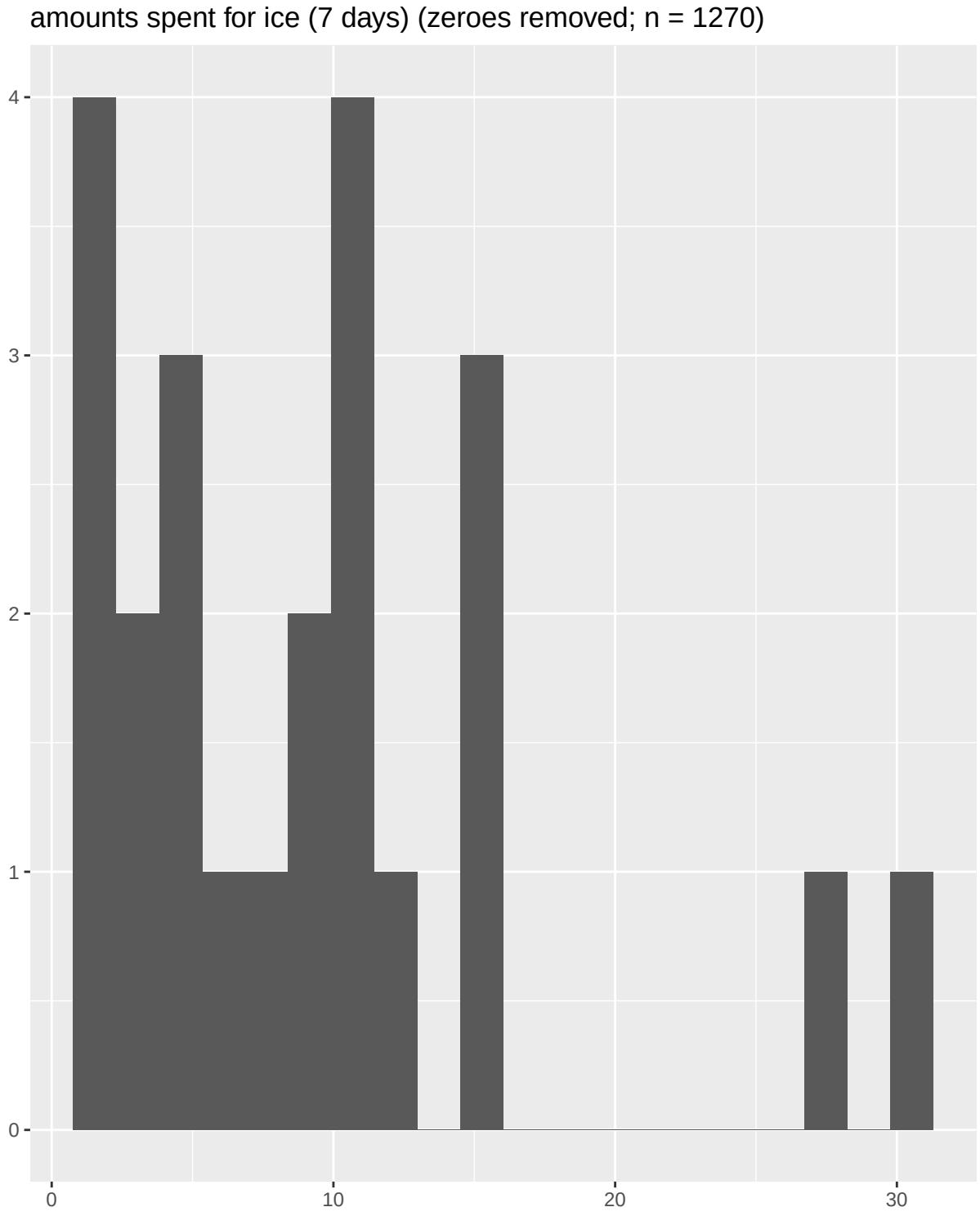

relatioship
4000
3000
2000
1000
0
Adopted child
Biological child
Brother / Sister
Father In Law / Mother in law
Grandchild
Head
Nephew / Niece
Other (not related)
Other relatives
Parent
Son/Daughter in law
Spouse /Partner
Uncle / Aunt

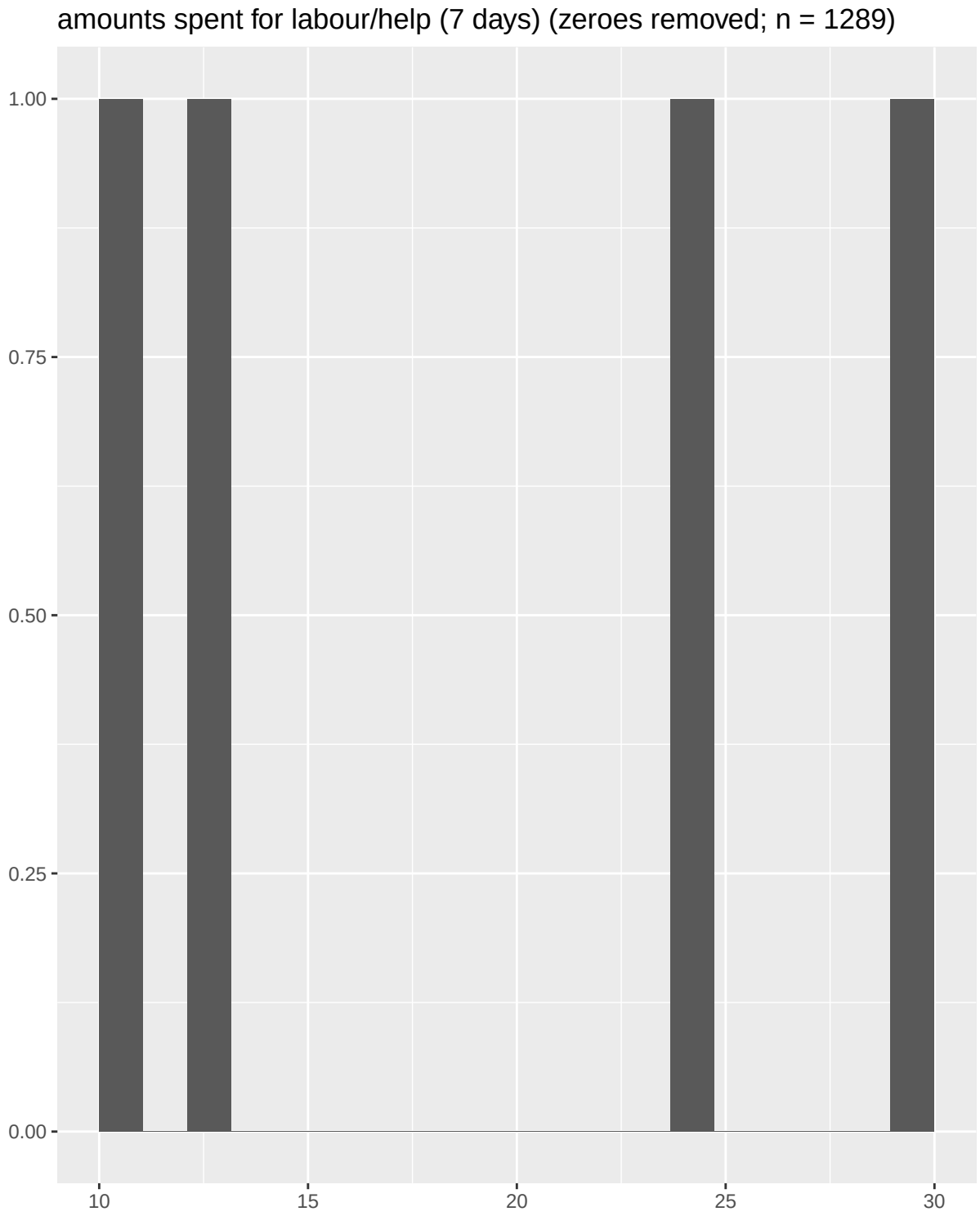

HM involvement in fishing
10000
7500
5000
2500
0
No
Yes

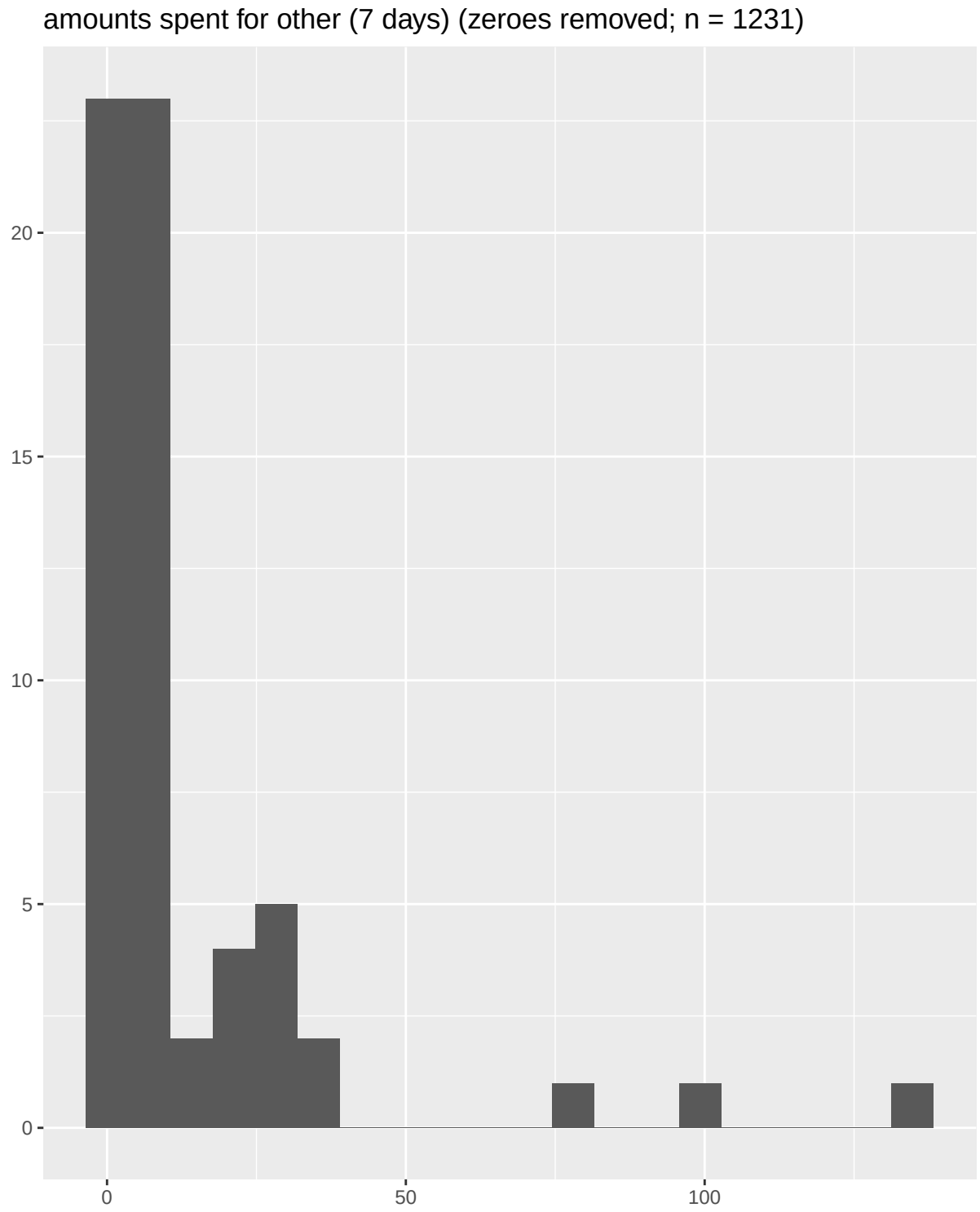

hours spent in fishing or hunting (7days)
600
400
200
0
0
20
40
60

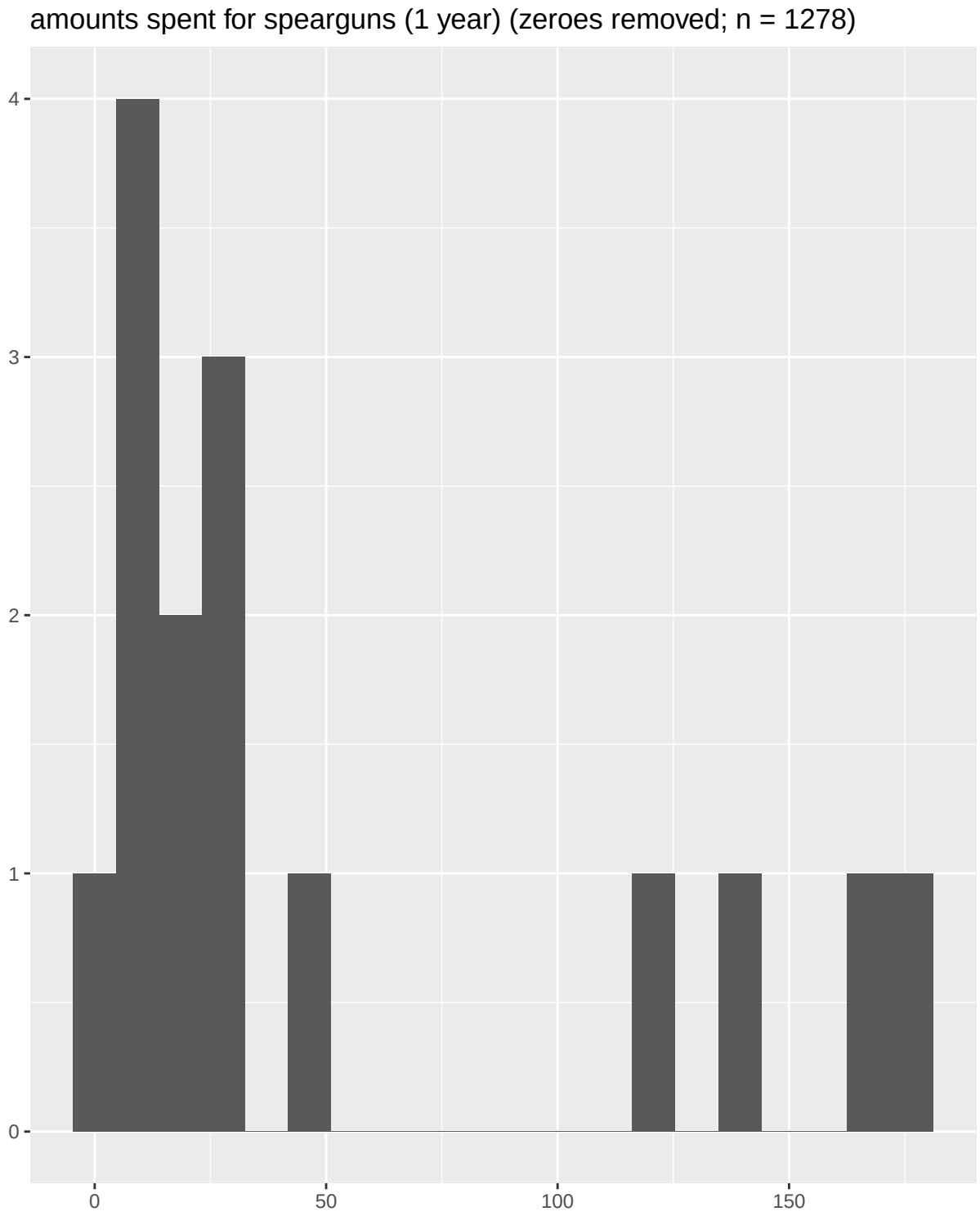

amounts spent for bait (7 days) (zeroes removed; n = 1268)
20
15
10
5
0
0
200
400
600

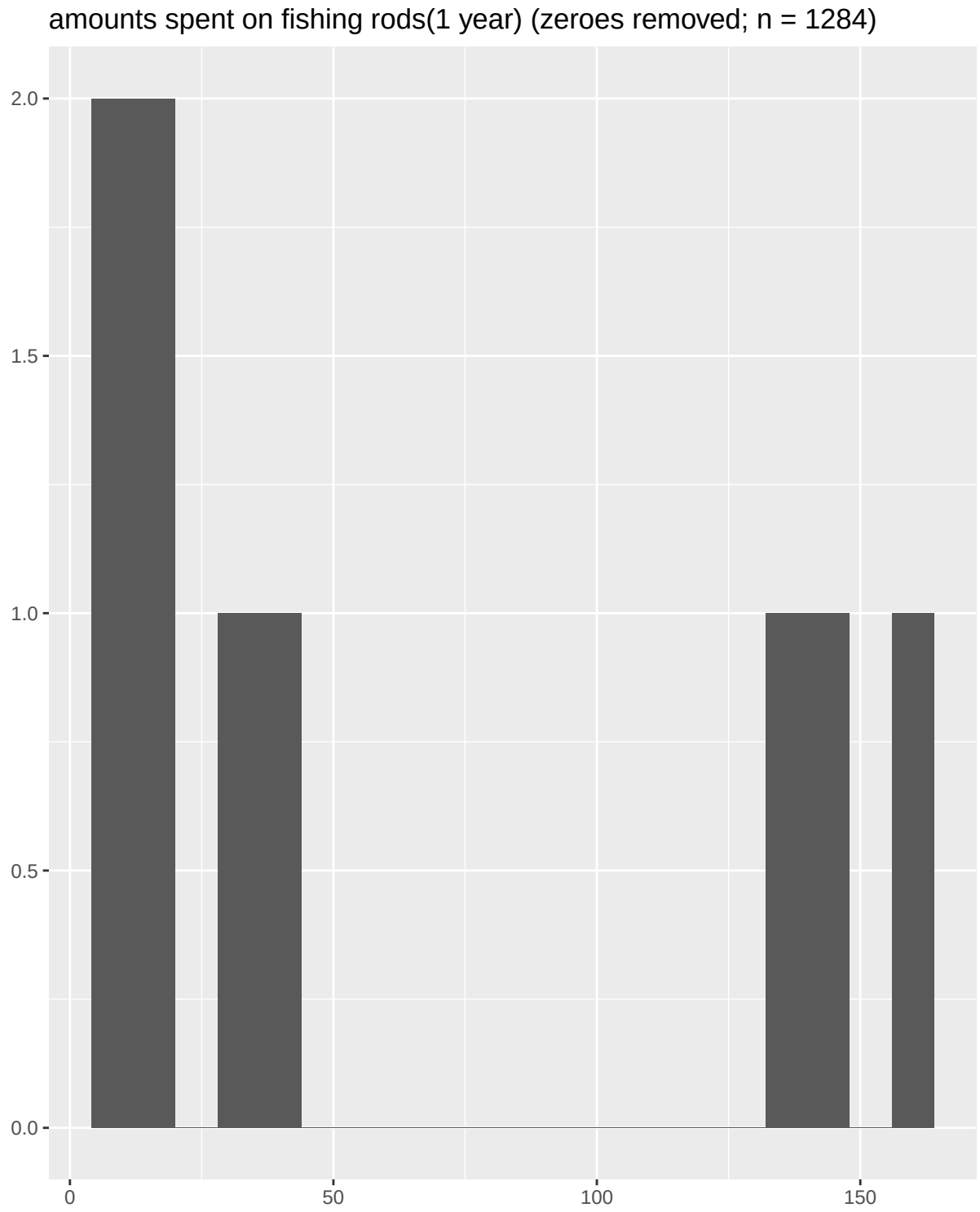

amounts spent for fishing gear (7 days) (zeroes removed; n = 1261)
6
4
2
0
0
10
20

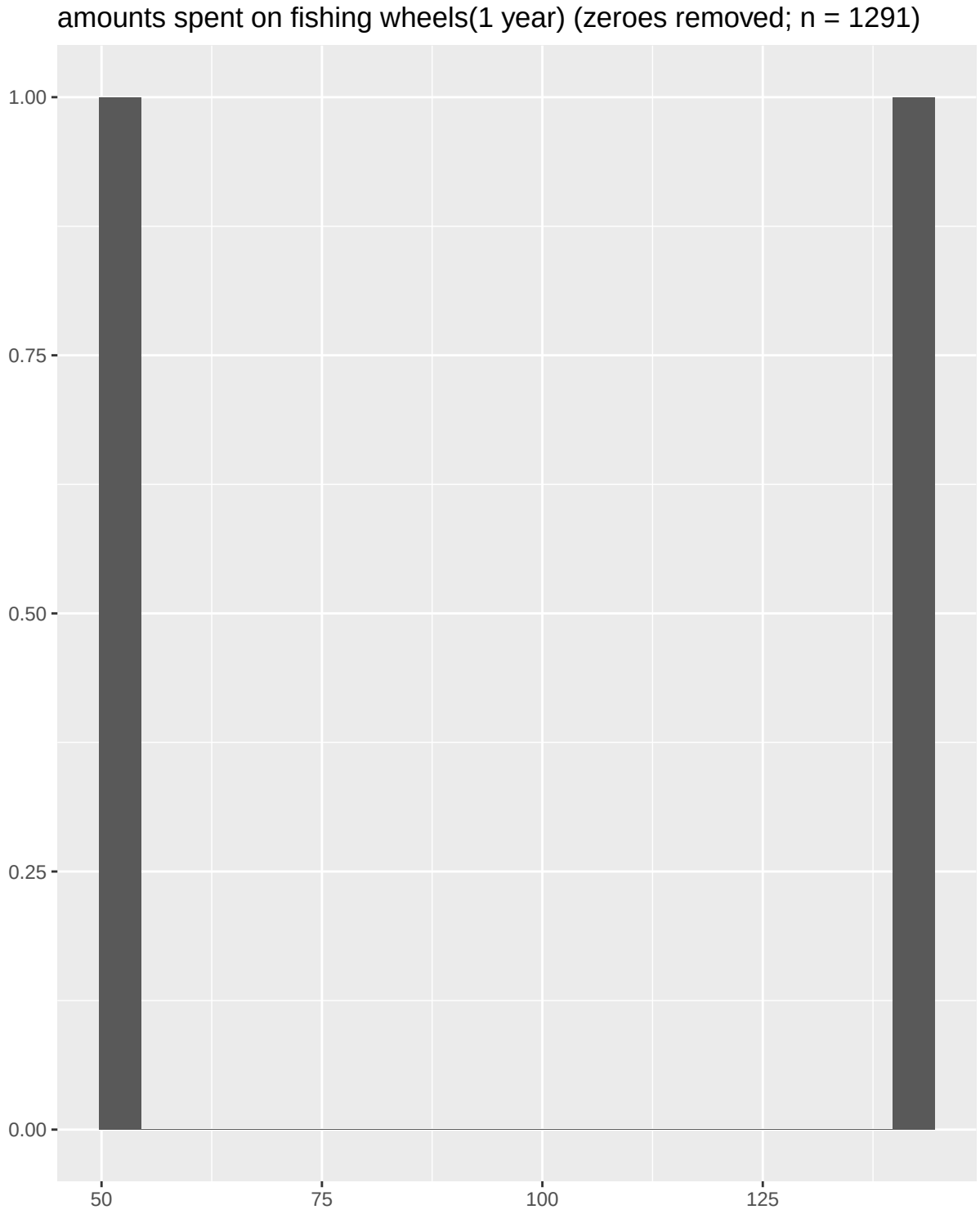

amounts spent for ice (7 days) (zeroes removed; n = 1270)
4
3
2
1
0
0
10
20
30

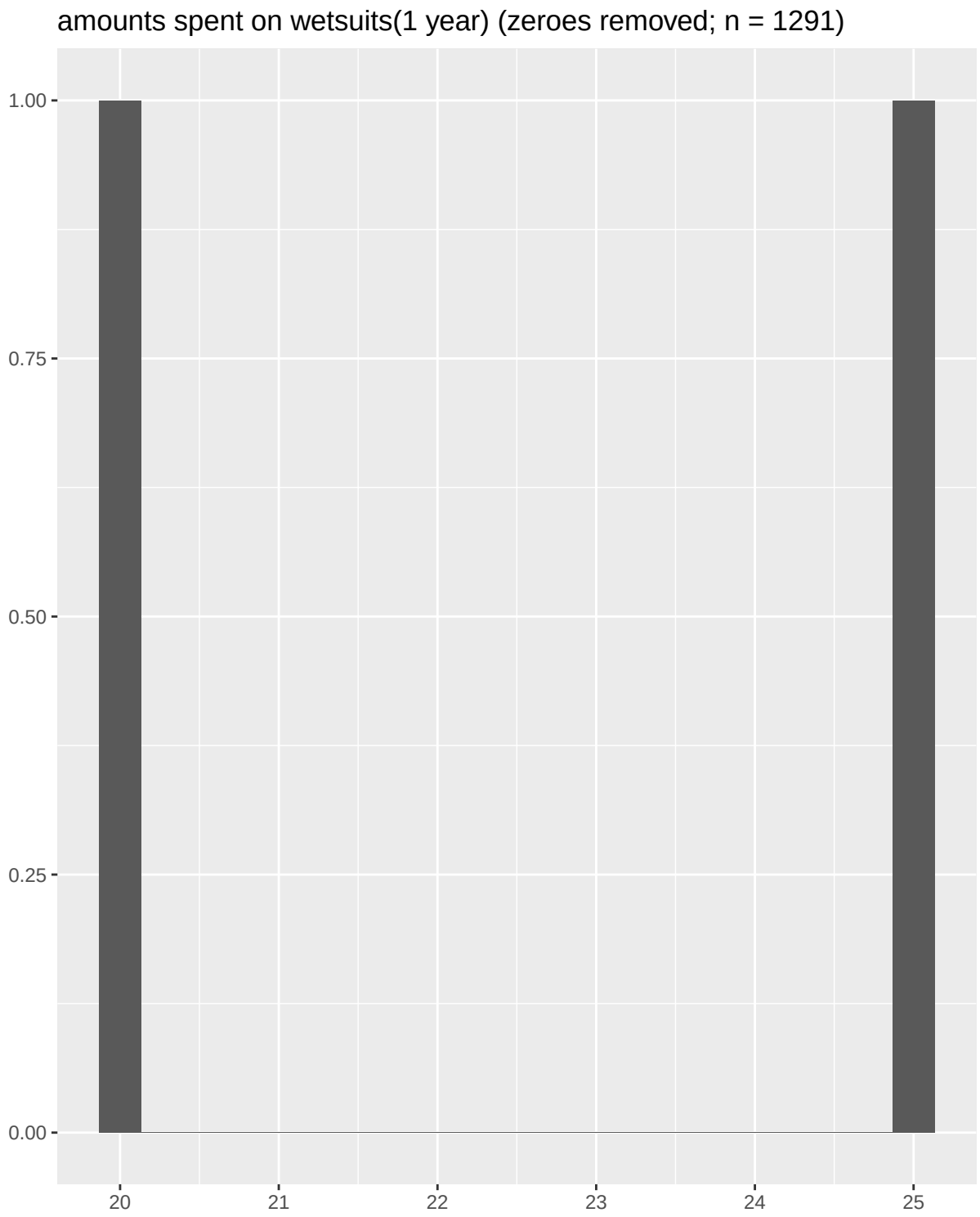

amounts spent for labour/help (7 days) (zeroes removed; n = 1289)
1.00
0.75
0.50
0.25
0.00
10
15
20
25
30

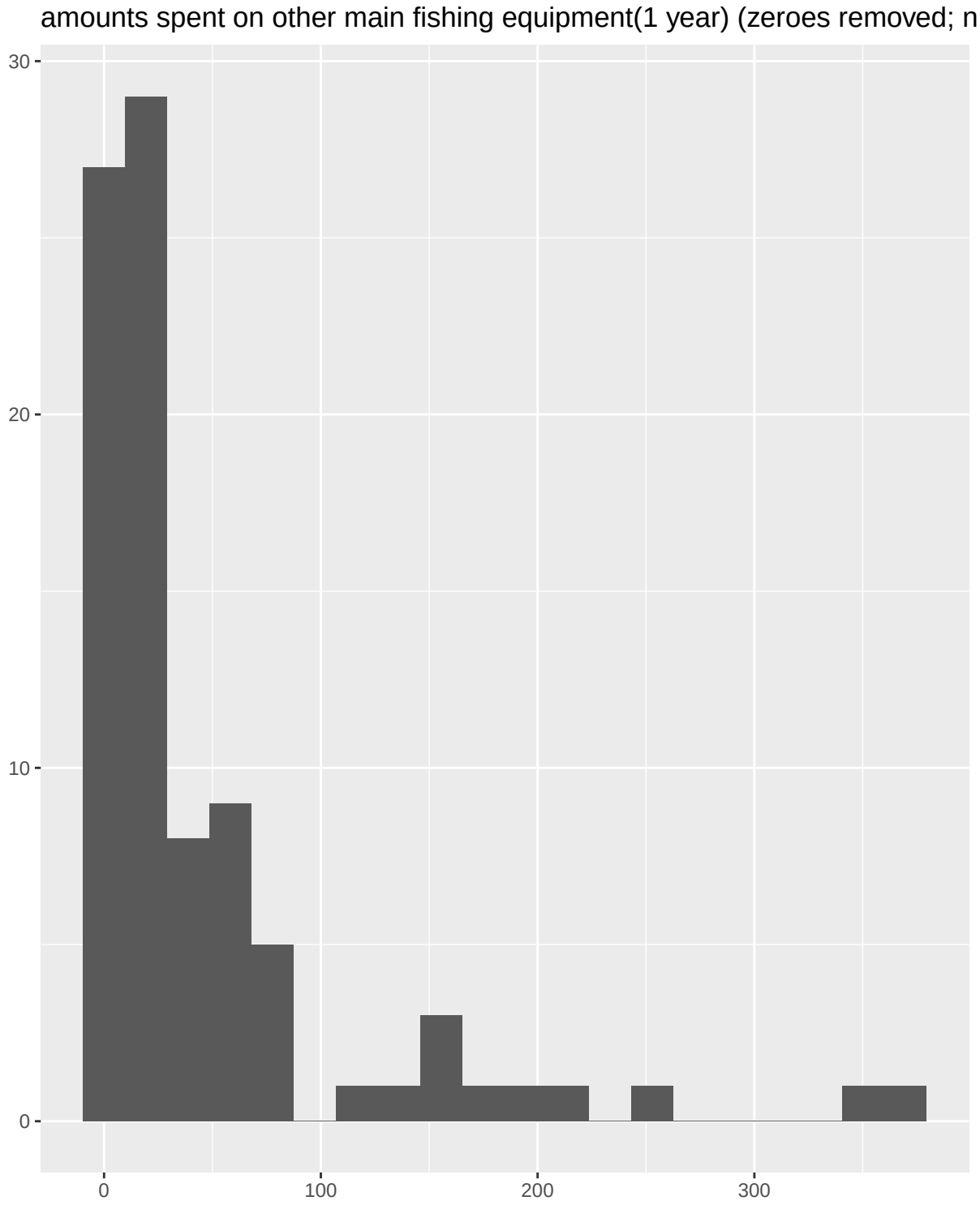

amounts spent for other (7 days) (zeroes removed; n = 1231)
20
15
10
5
0
0
50
100

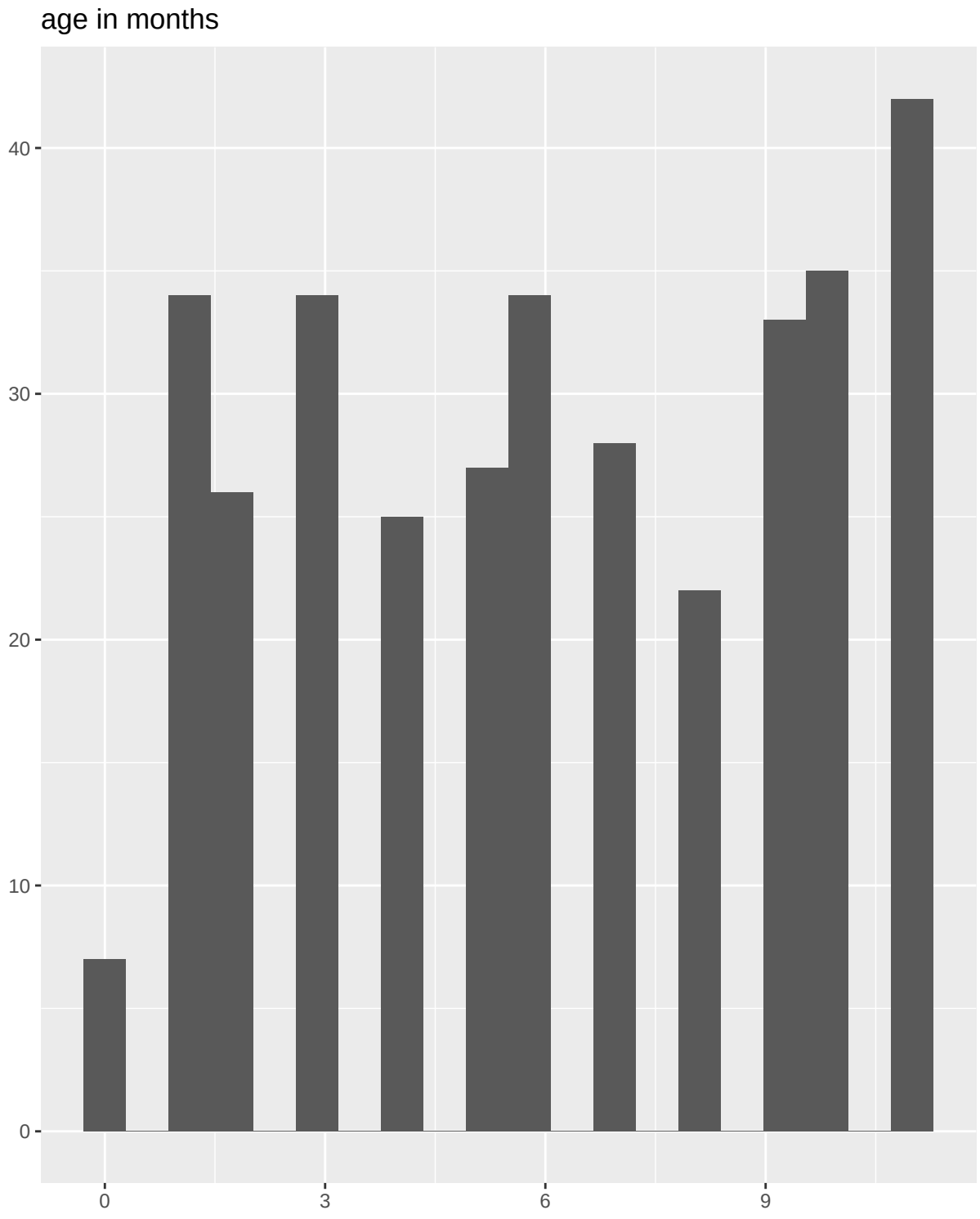

amounts spent for spearguns (1 year) (zeroes removed; n = 1278)
4
3
2
1
0
0
50
100
150


amounts spent on fishing rods(1 year) (zeroes removed; n = 1284)
2.0
1.5
1.0
0.5
0.0
0
50
100
150


amounts spent on fishing wheels(1 year) (zeroes removed; n = 1291)
1.00
0.75
0.50
0.25
0.00
50
75
100
125


amounts spent on wetsuits(1 year) (zeroes removed; n = 1291)
1.00
0.75
0.50
0.25
0.00
20
21
22
23
24
25

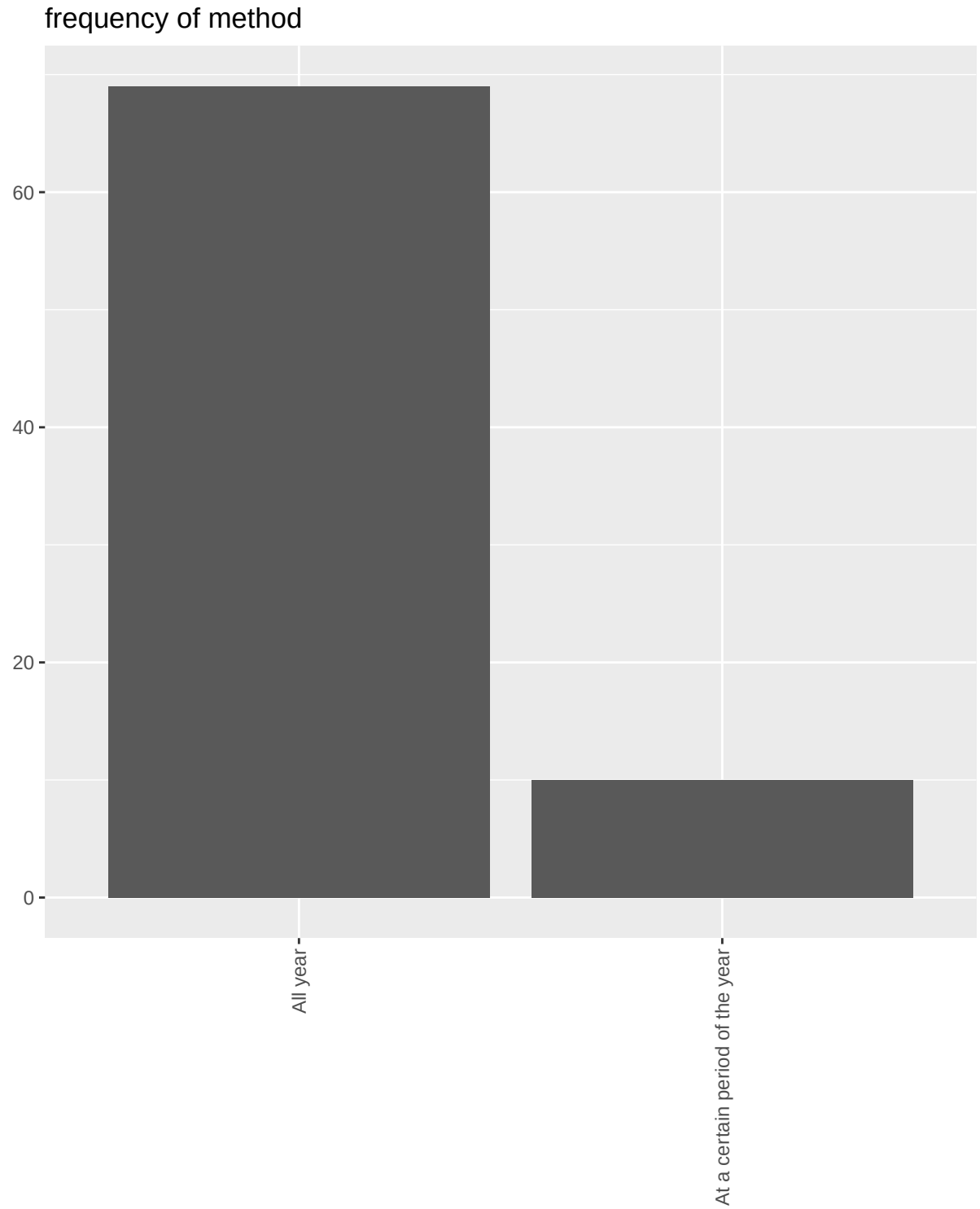

amounts spent on other main fishing equipment(1 year) (zeroes removed; n
30
20
10
0
0
100
200
300

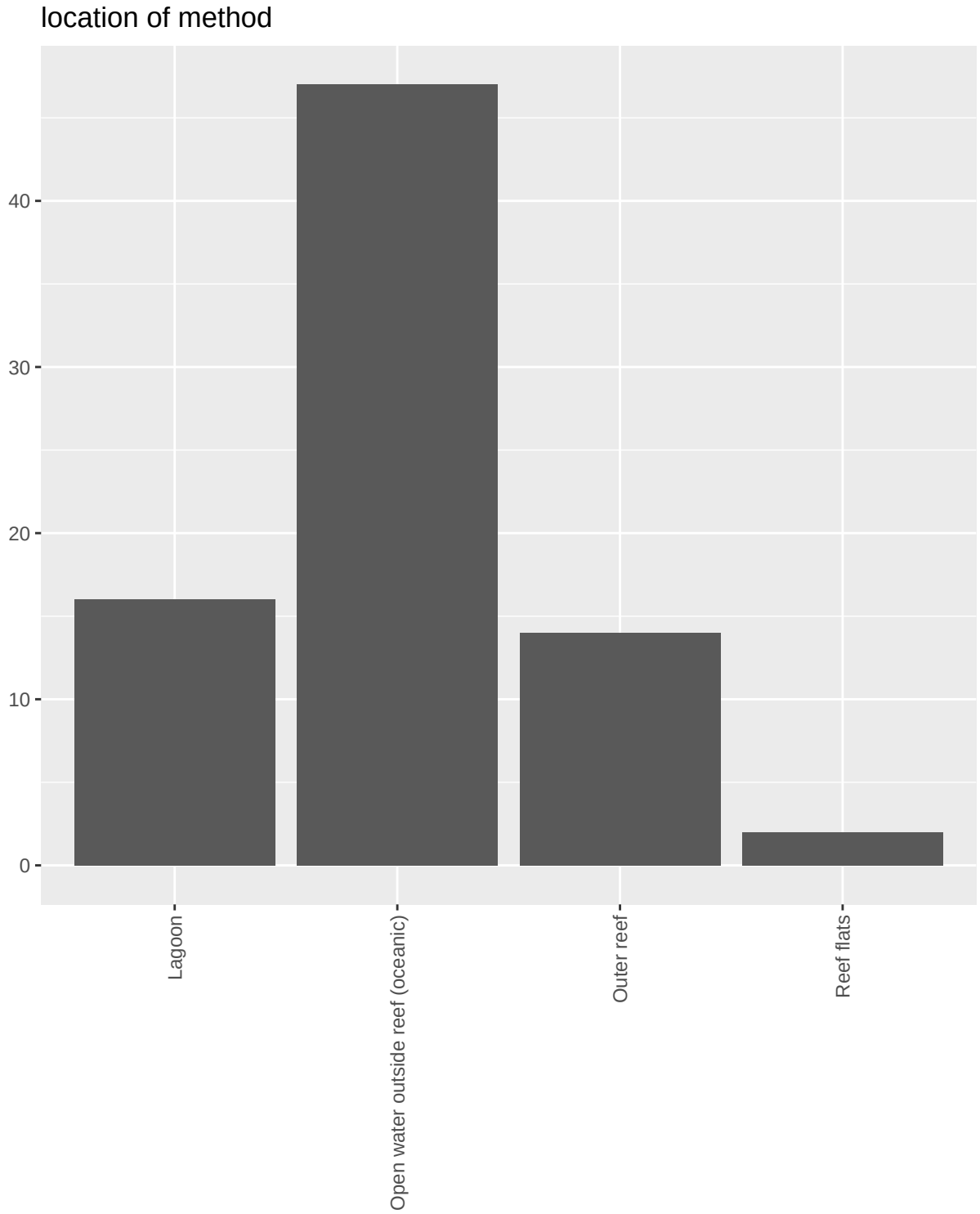

age in months
40
30
20
10
0
0
3
6
9

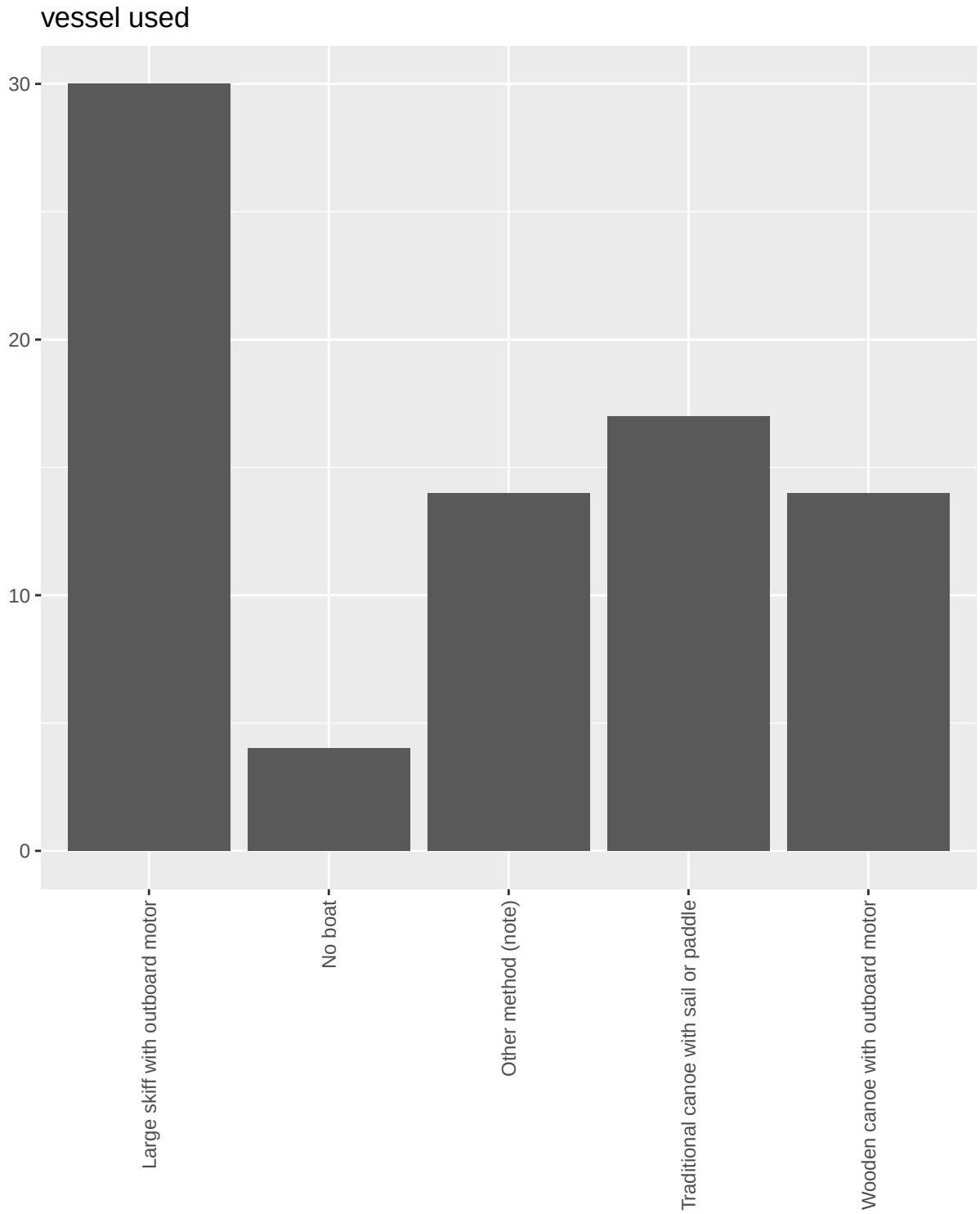
Other Fisheries (p903r) data

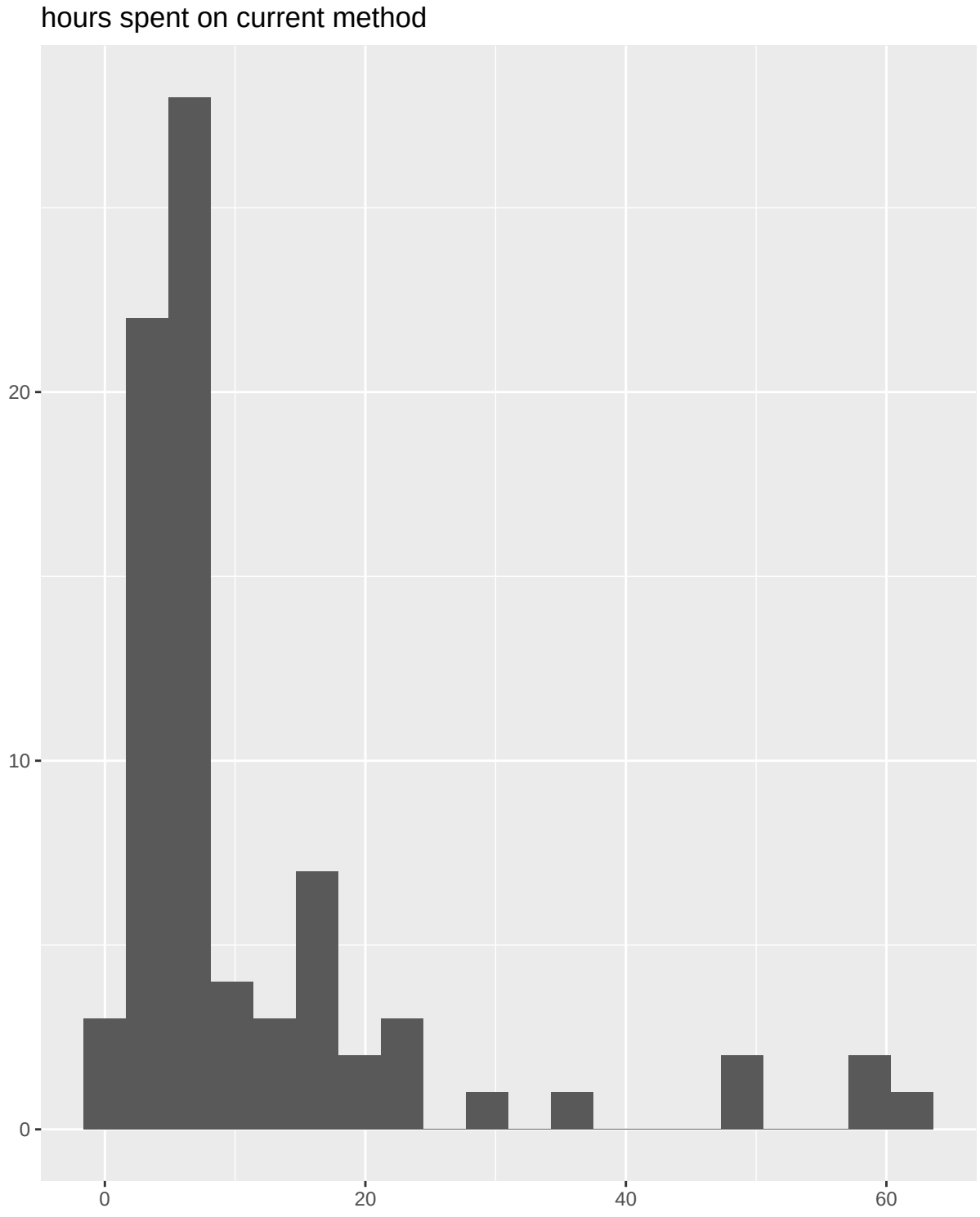
```
## # A tibble: 10 x 1
##    p903r__id
##    <chr>
##  1 Trolling, jigging or deep water line fishing - Te kasiki
##  2 Handline (drop stone, pole fishing, rod &amp;amp; reel) - Te karekare
##  3 Gleaning / Collecting
##  4 Other (note)
##  5 Spearfishing night (Te katebe te tairiki)
##  6 Spearfishing day ((Te katebe te ngaina)
##  7 Net (beach seine, gill, cast) - Te karaun
##  8 Freediving / diving without SCUBA (Te tebo)
##  9 Traps (Te uu)
## 10 Diving with SCUBA (Te tebo me te bwai n ikeike)
```

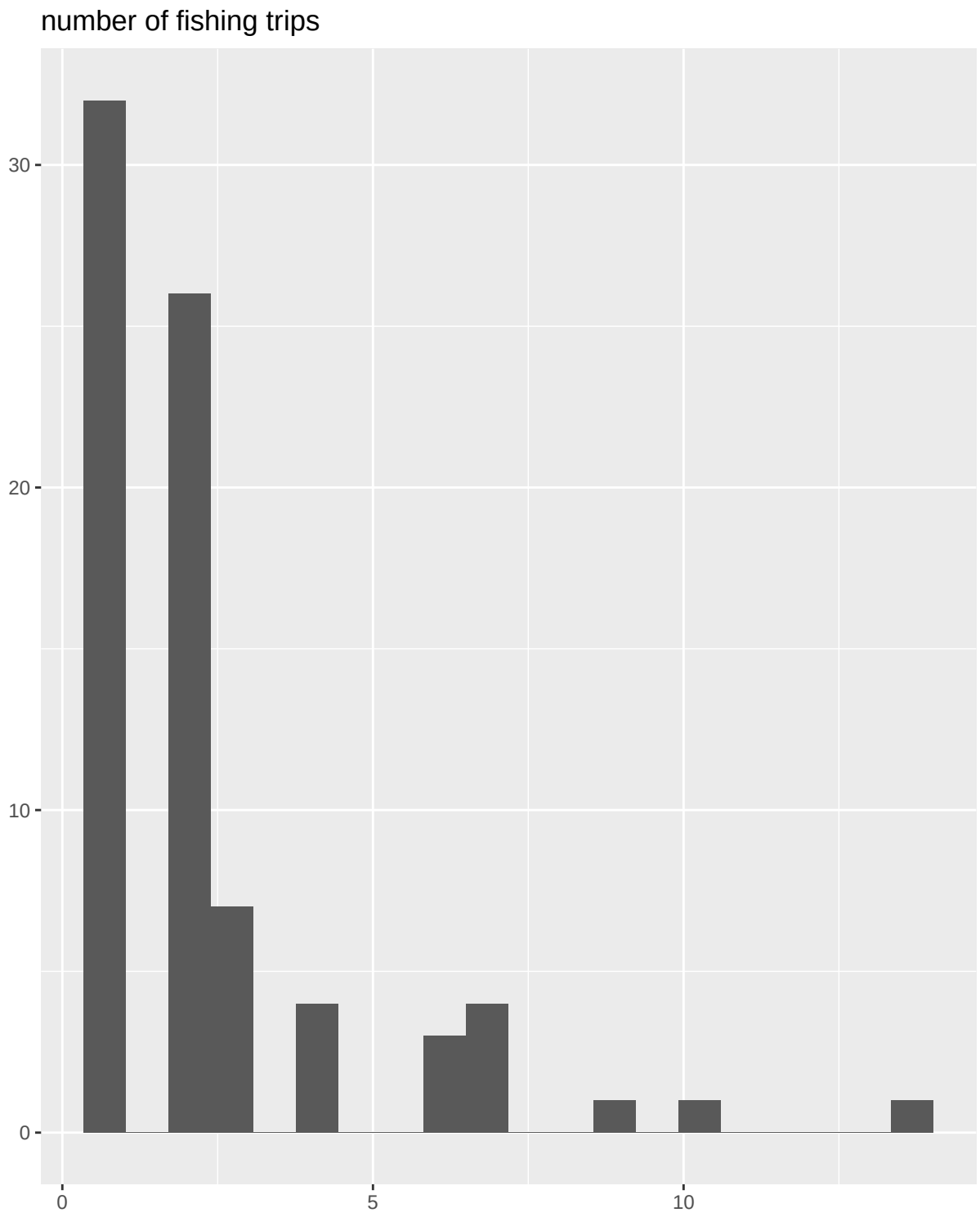
Fishing Method: Trolling, jigging or deep water line fishing

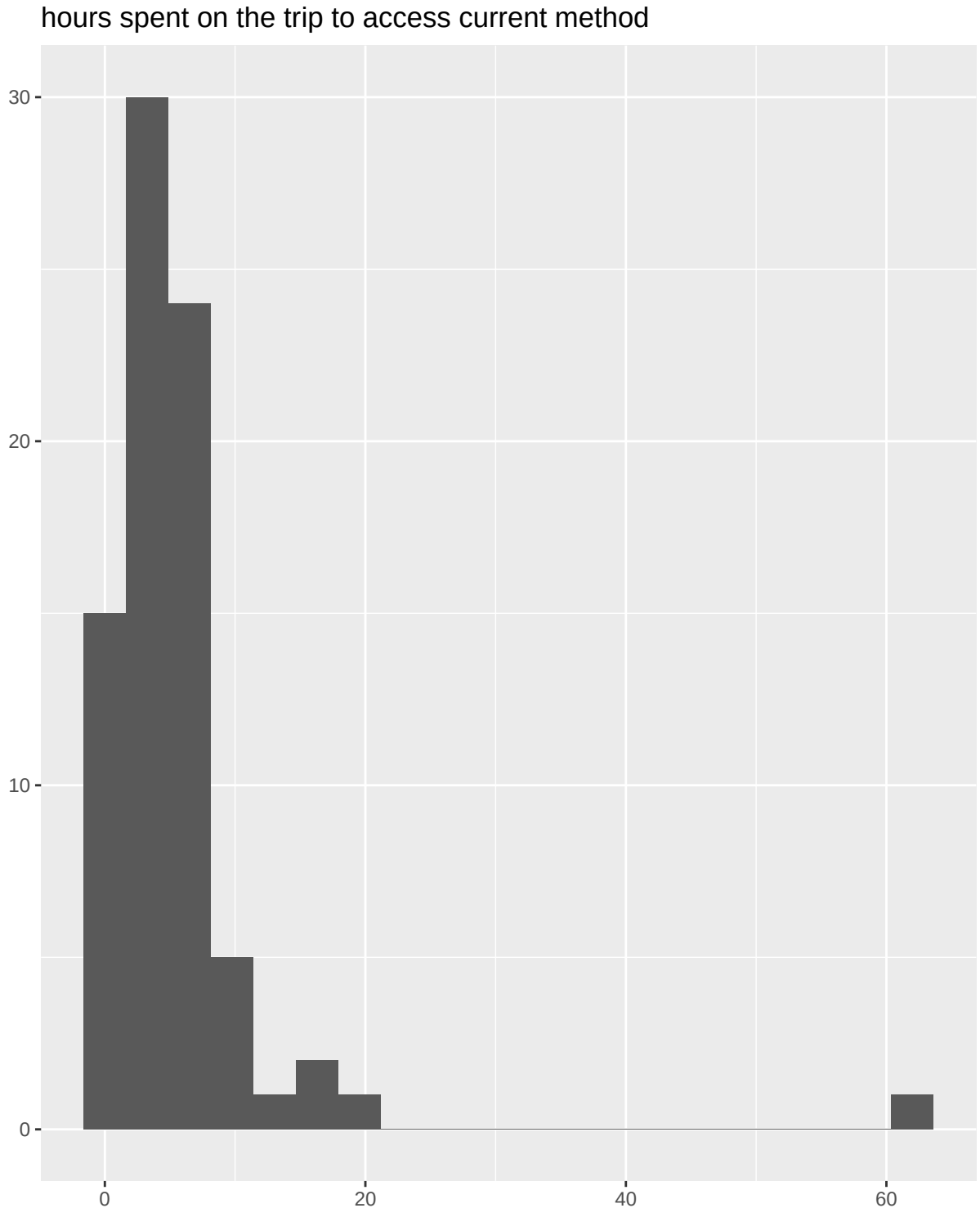


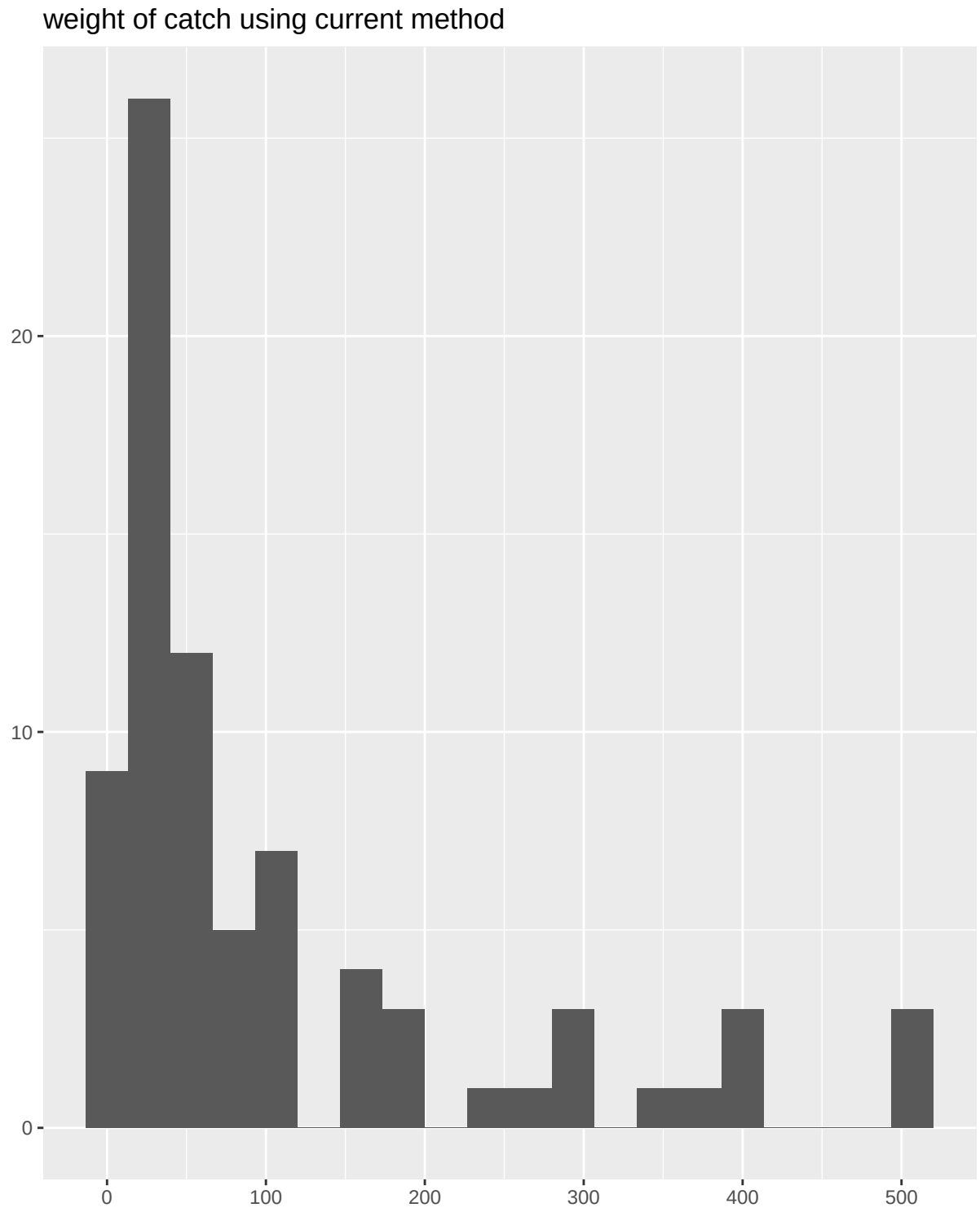

location of method
40
30
20
10
0
Lagoon
Open water outside reef (oceanic)
Outer reef
Reef flats

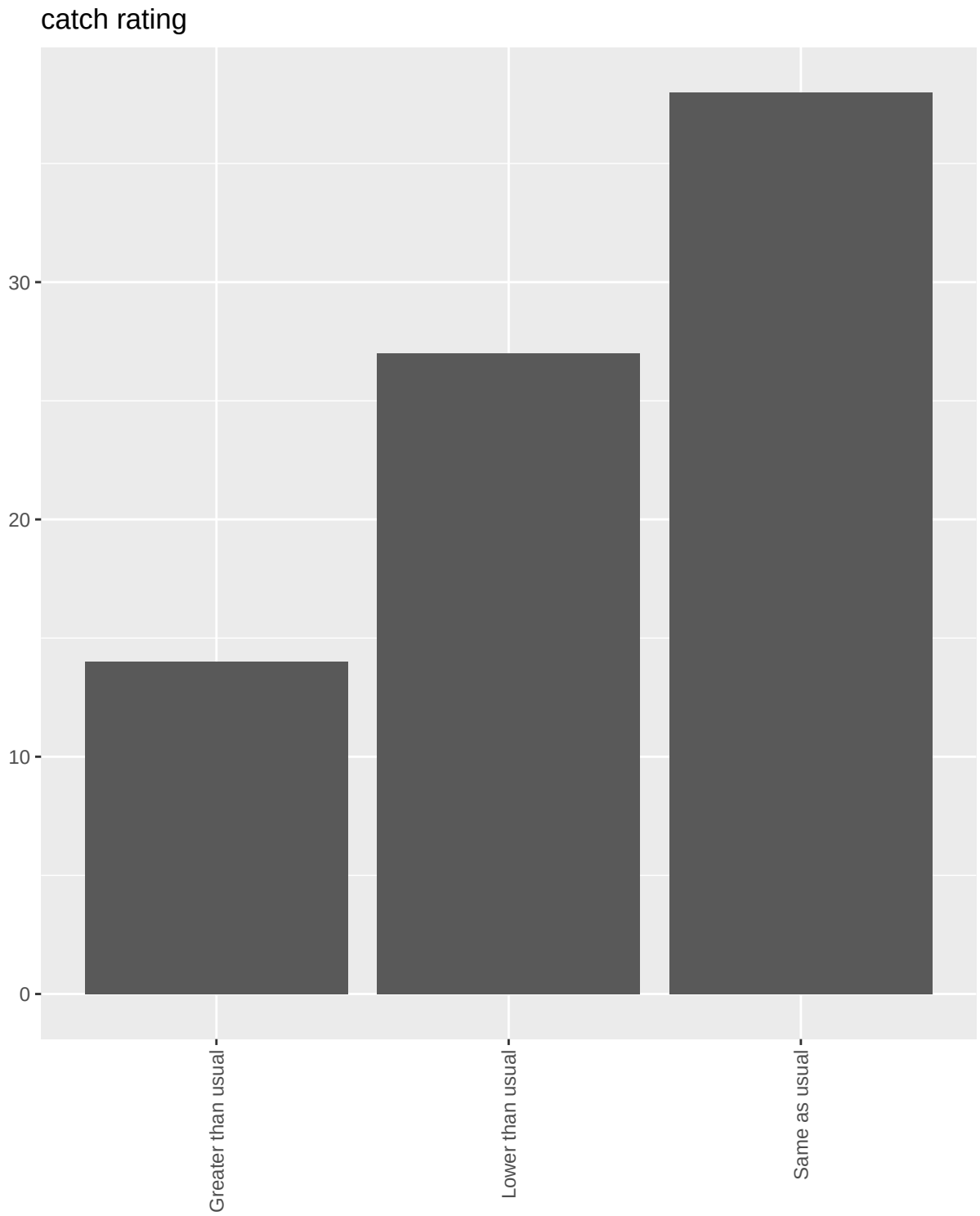

vessel used
30
20
10
0
Large skiff with outboard motor
No boat
Other method (note)
Traditional canoe with sail or paddle
Wooden canoe with outboard motor

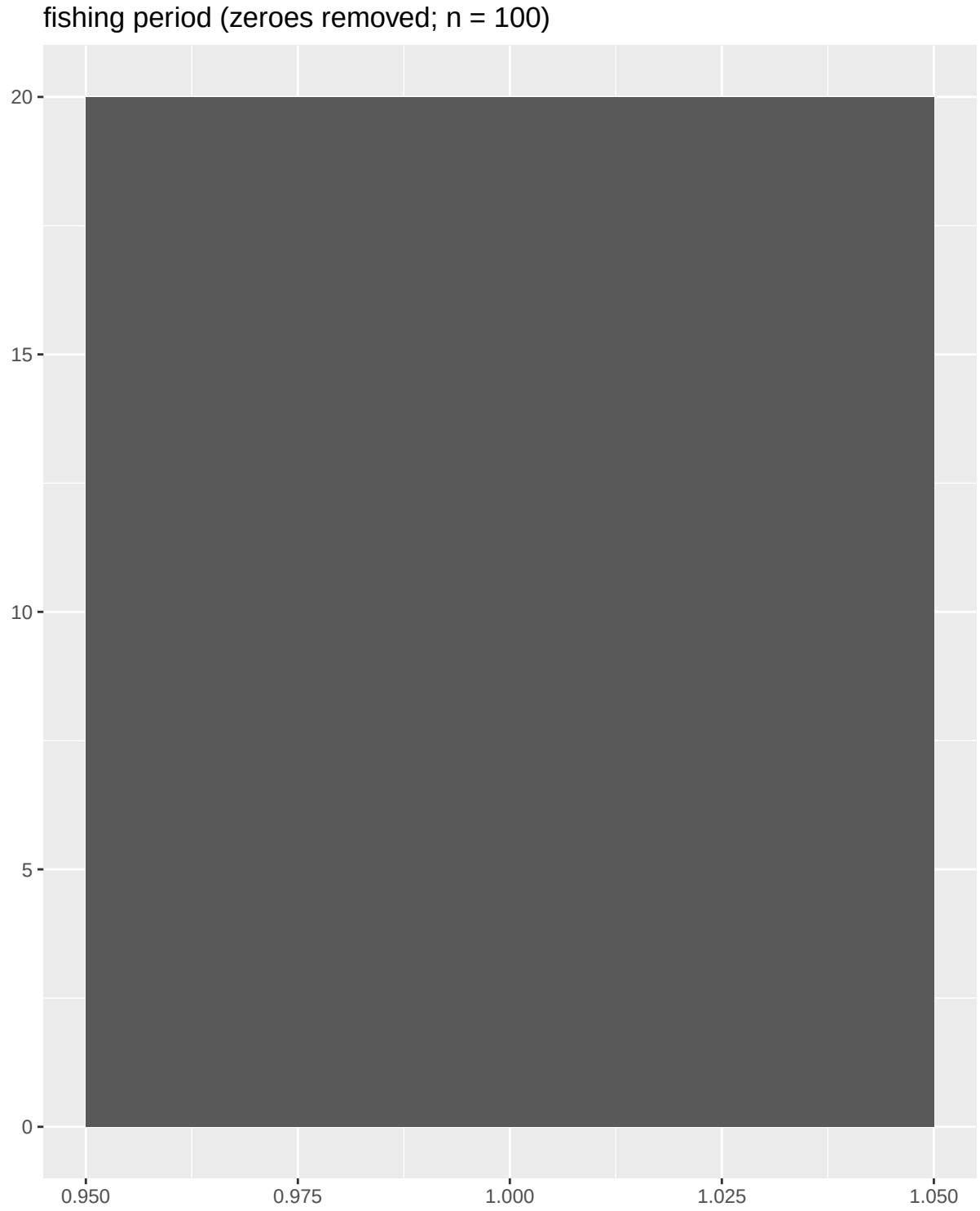

hours spent on current method
20
10
0
0
20
40
60


number of fishing trips
30
20
10
0
0
5
10

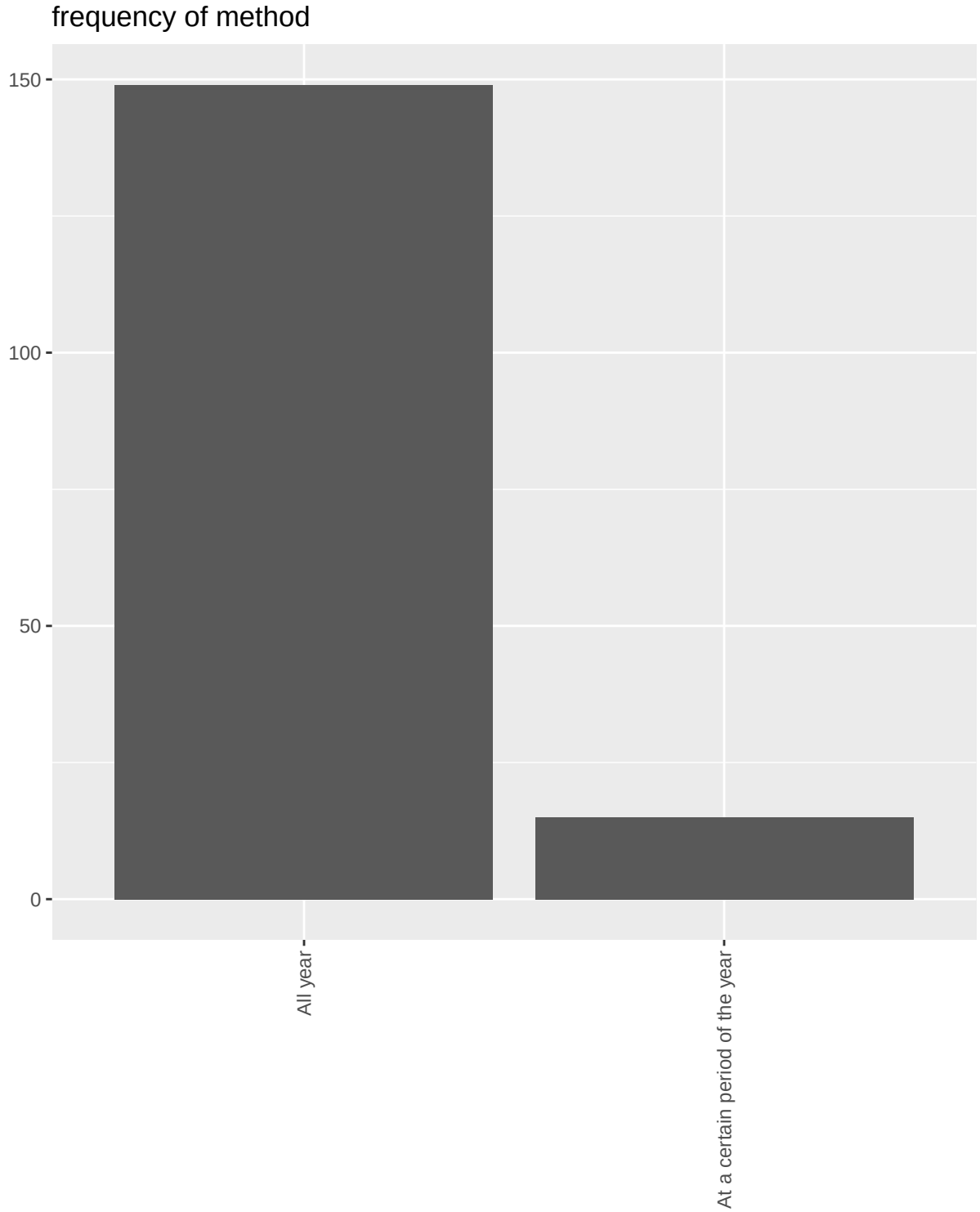

hours spent on the trip to access current method
30
20
10
0
0
20
40
60

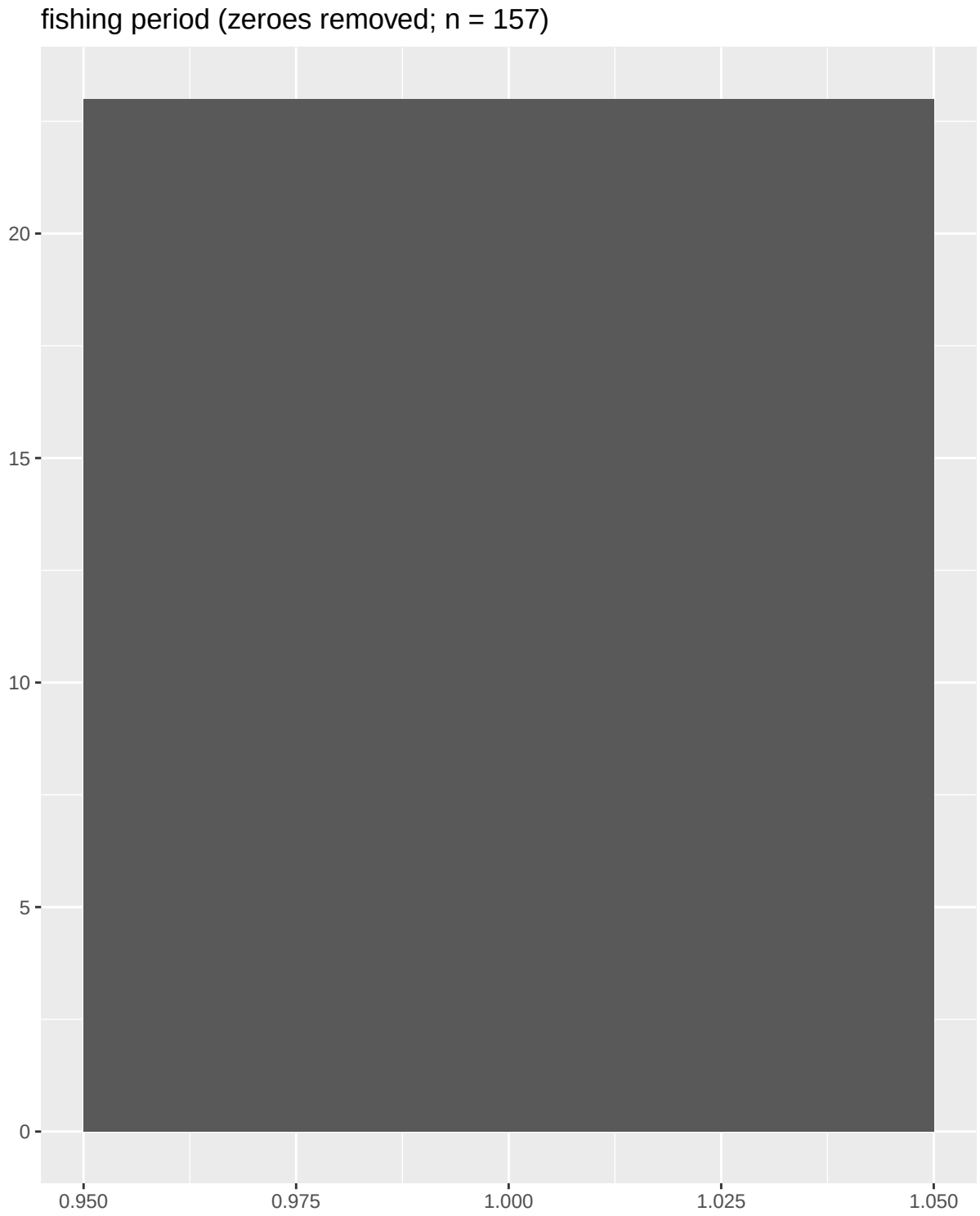

weight of catch using current method
20
10
0
0
100
200
300
400
500

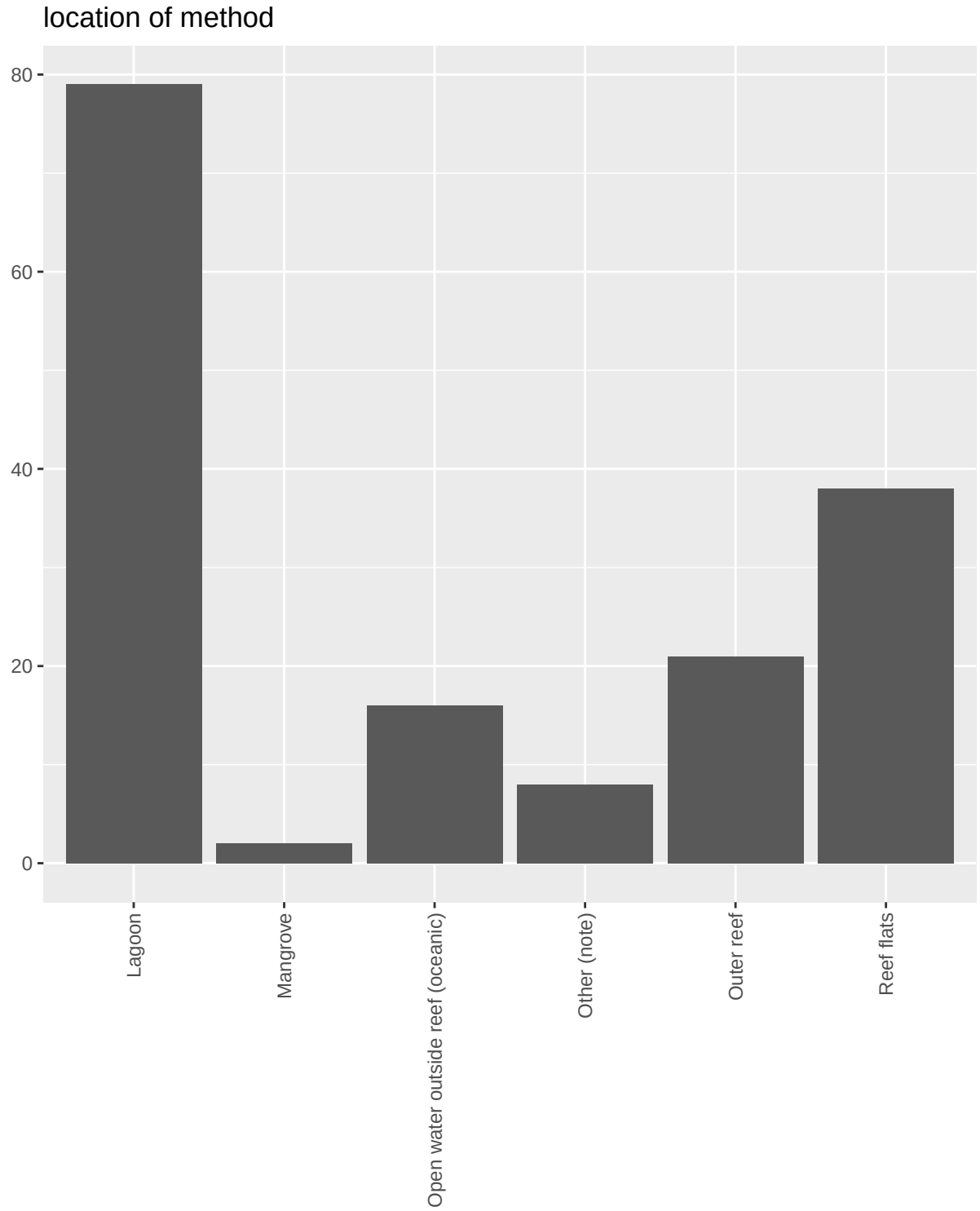

catch rating
30
20
10
0
Greater than usual
Lower than usual
Same as usual

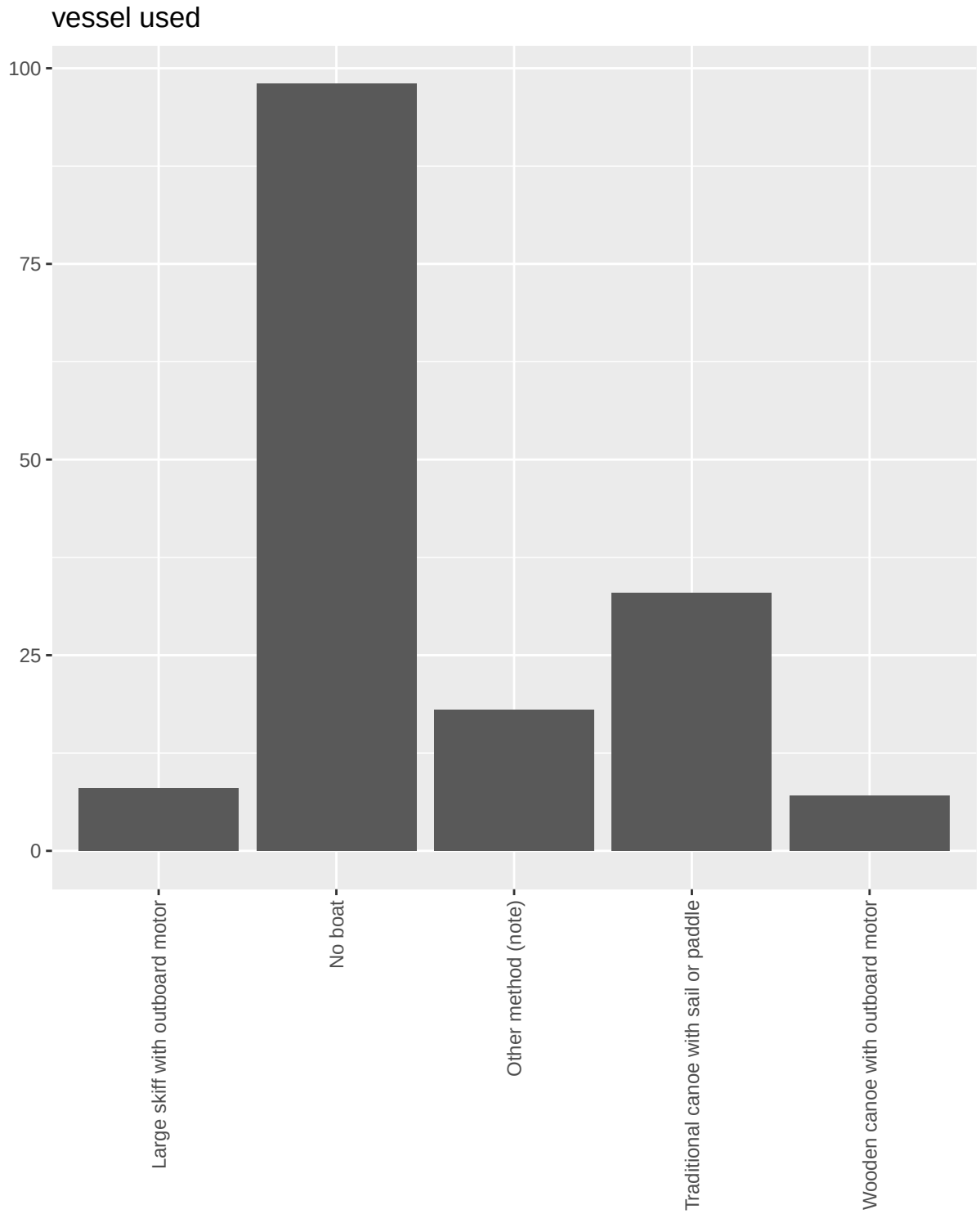

fishing period (zeroes removed; n = 100)
20
15
10
5
0
0.950
0.975
1.000
1.025
1.050

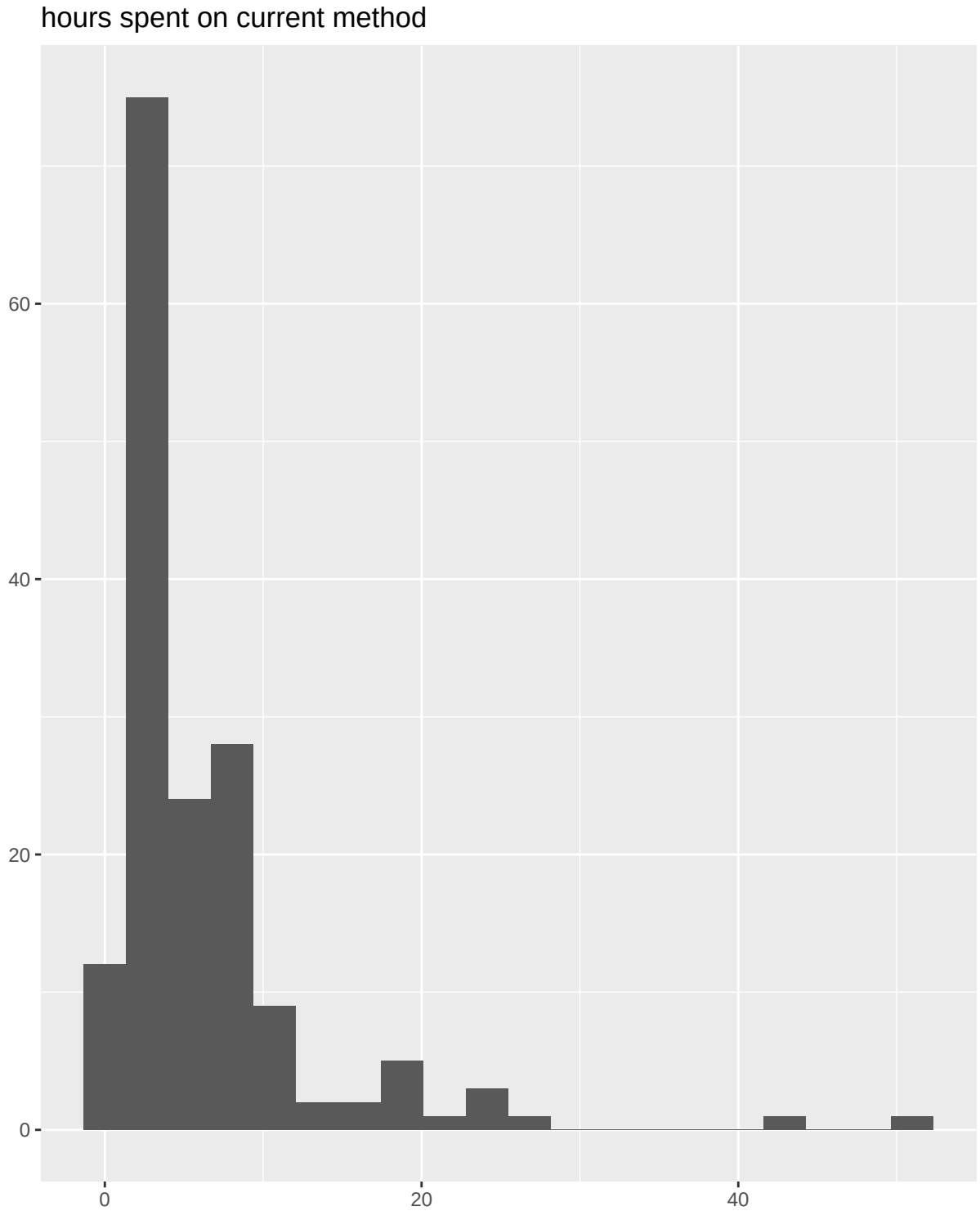
Fishing Method: Handline (drop stone, pole fishing, rod & reel) - Te karekare

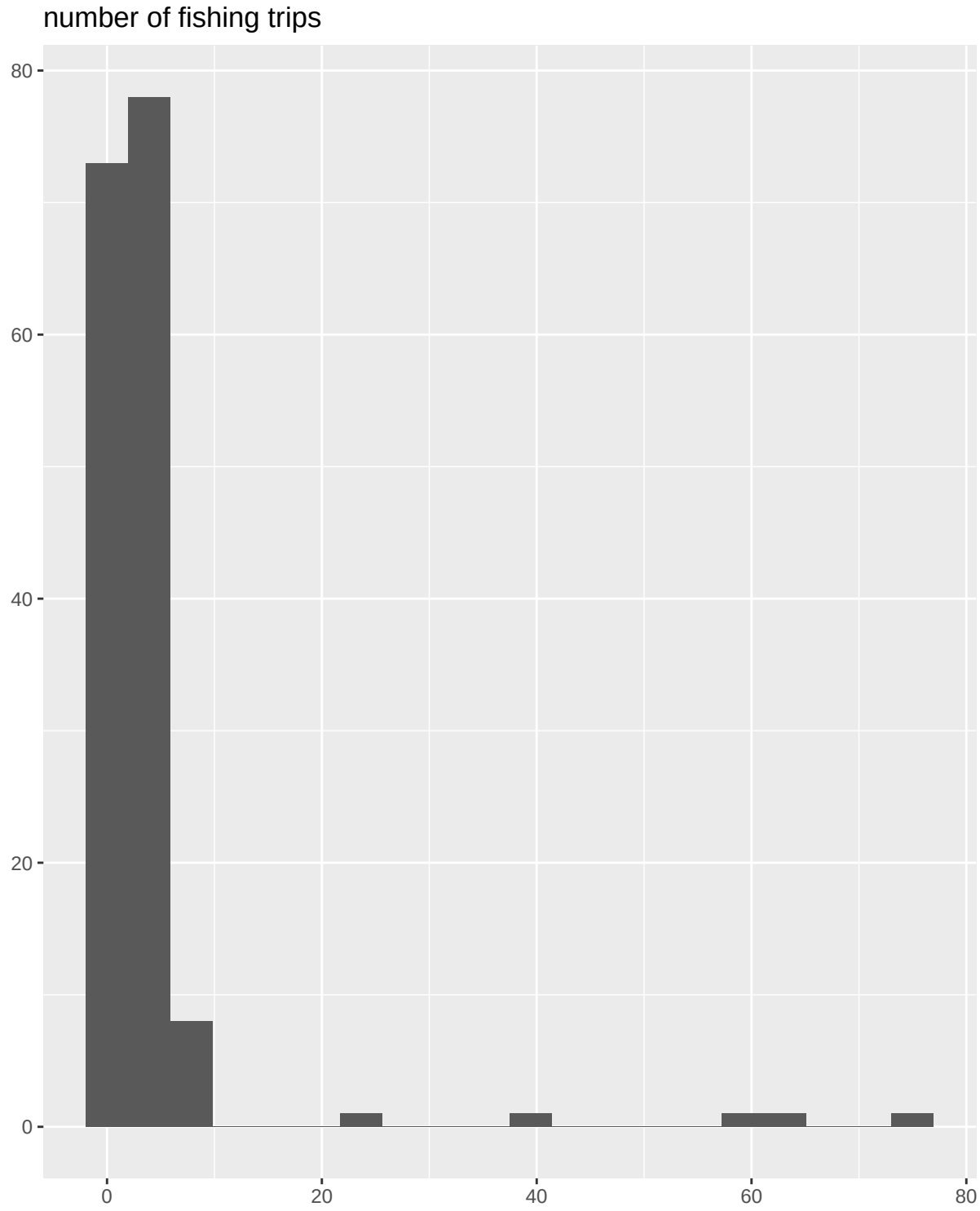


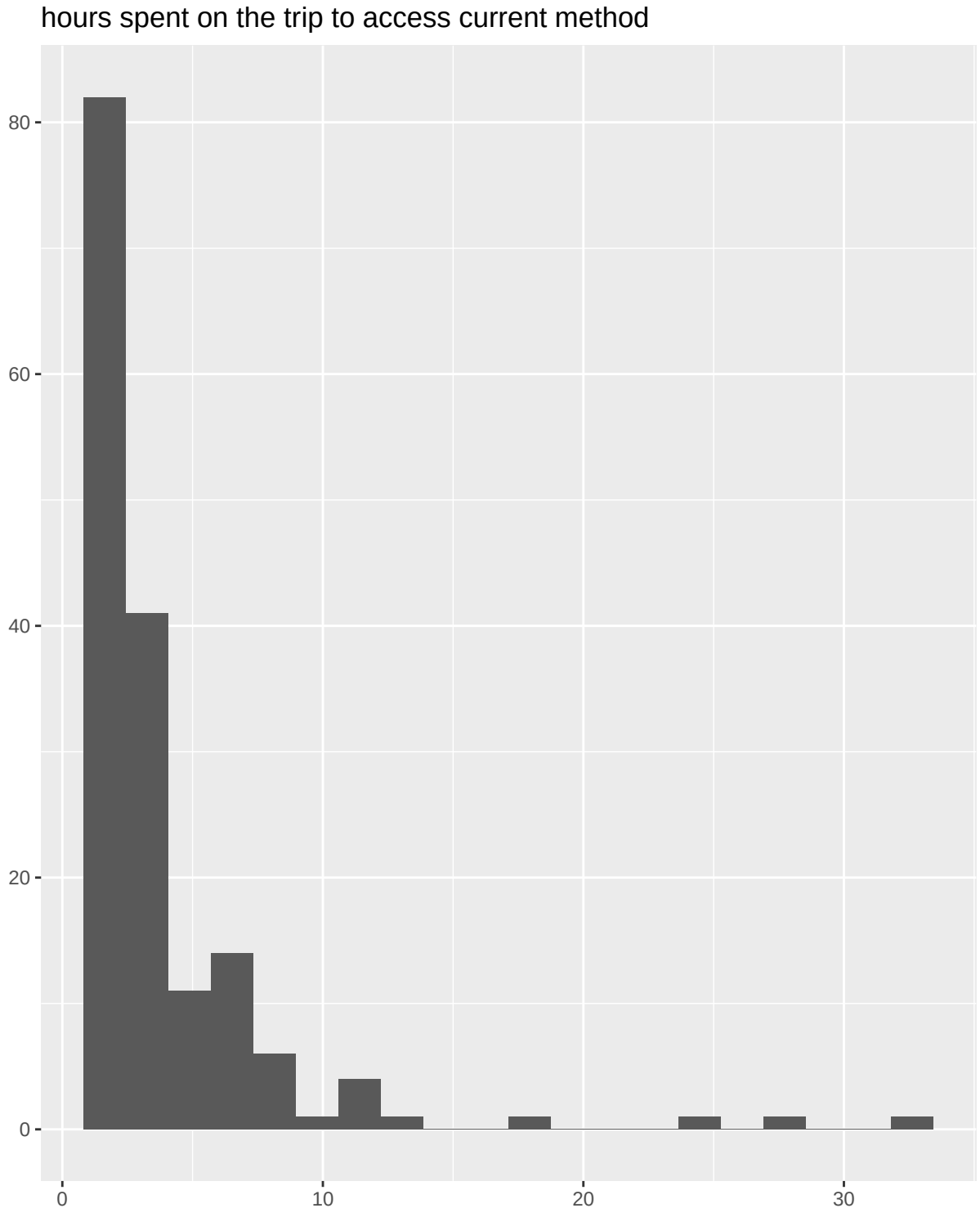

fishing period (zeroes removed; n = 157)
20
15
10
5
0
0.950
0.975
1.000
1.025
1.050

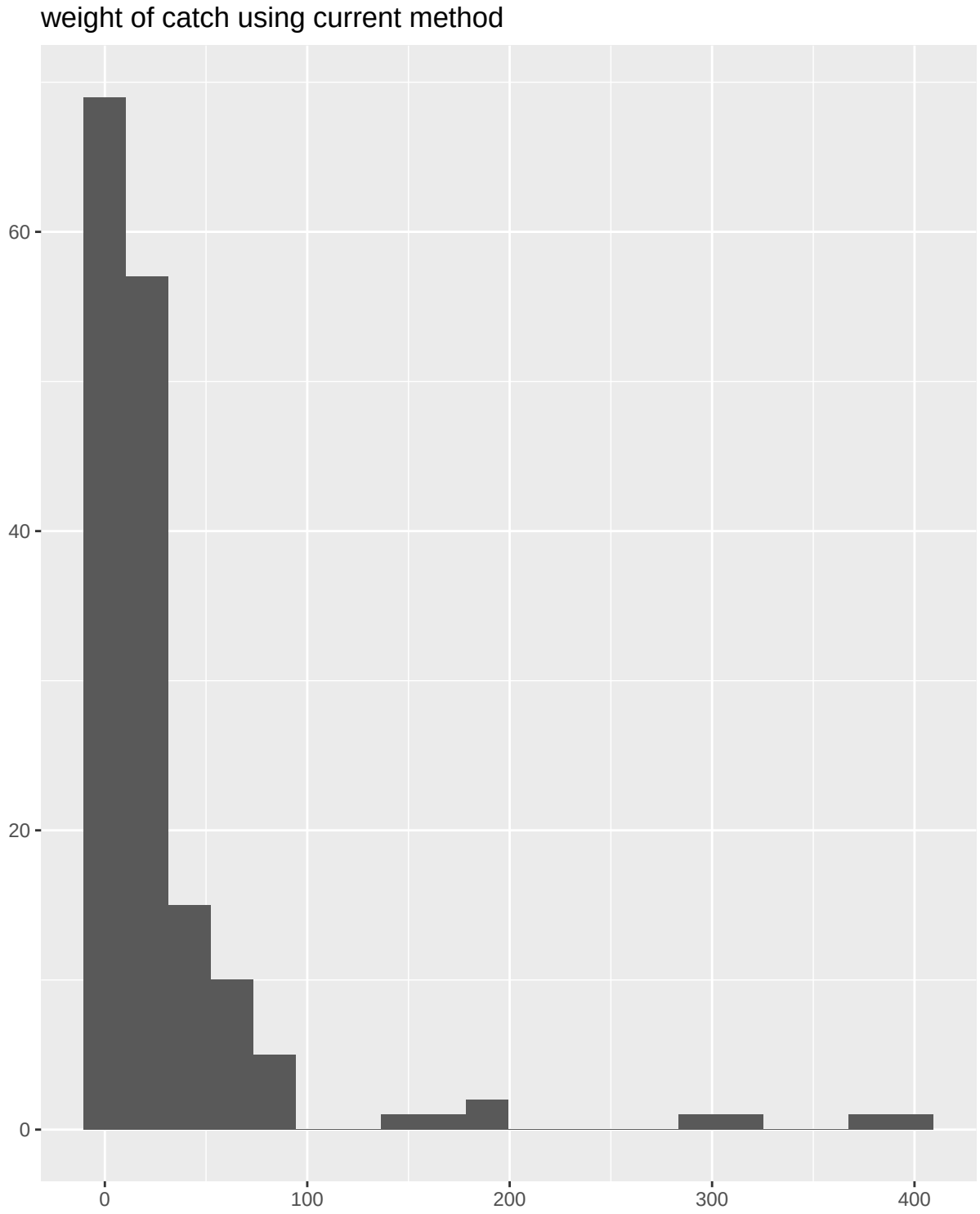

location of method
80
60
40
20
0
Lagoon
Mangrove
Open water outside reef (oceanic)
Other (note)
Outer reef
Reef flats

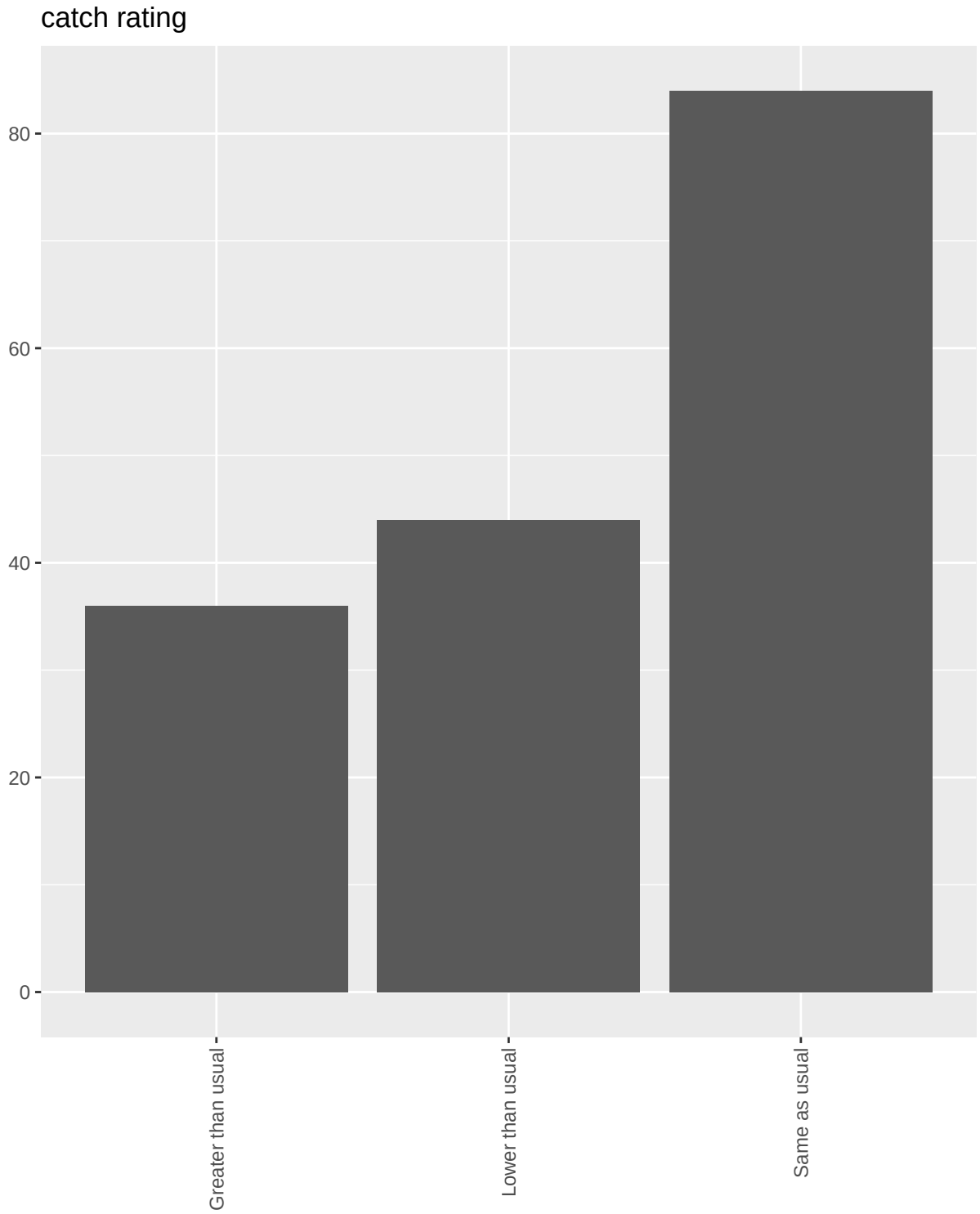

vessel used
100
75
50
25
0
Large skiff with outboard motor
No boat
Other method (note)
Traditional canoe with sail or paddle
Wooden canoe with outboard motor


hours spent on current method
60
40
20
0
0
20
40

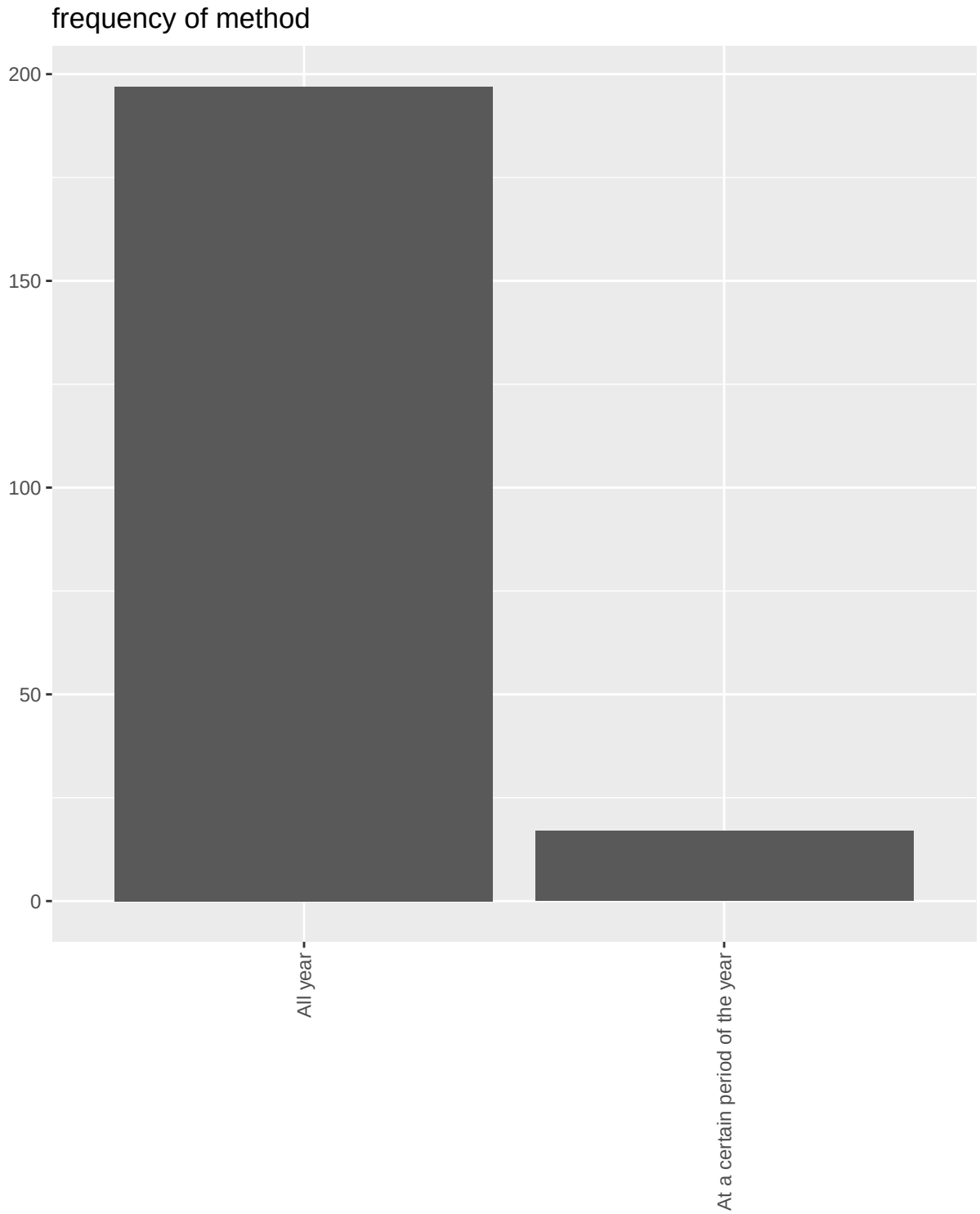

number of fishing trips
80
60
40
20
0
0
20
40
60
80

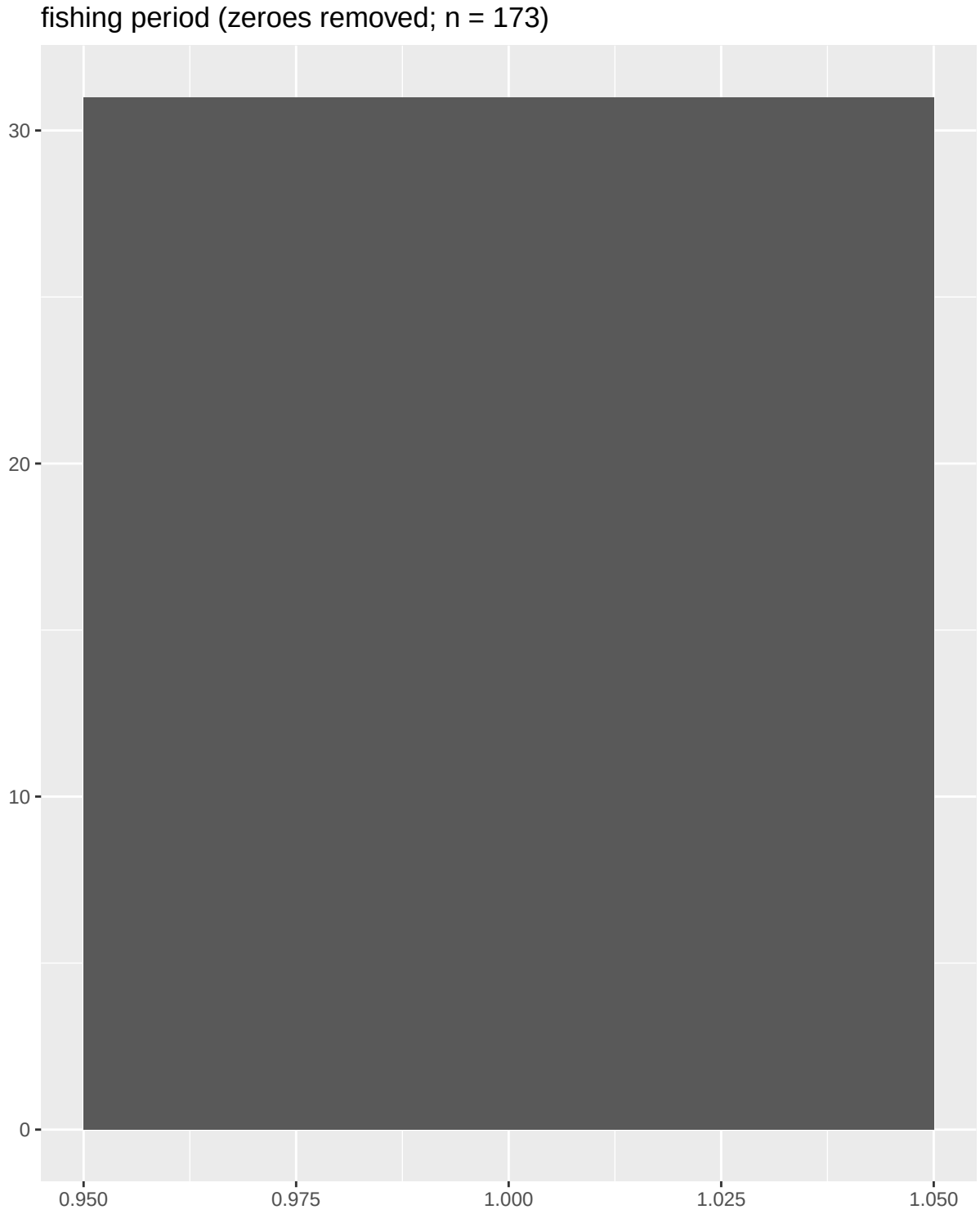

hours spent on the trip to access current method
80
60
40
20
0
0
10
20
30

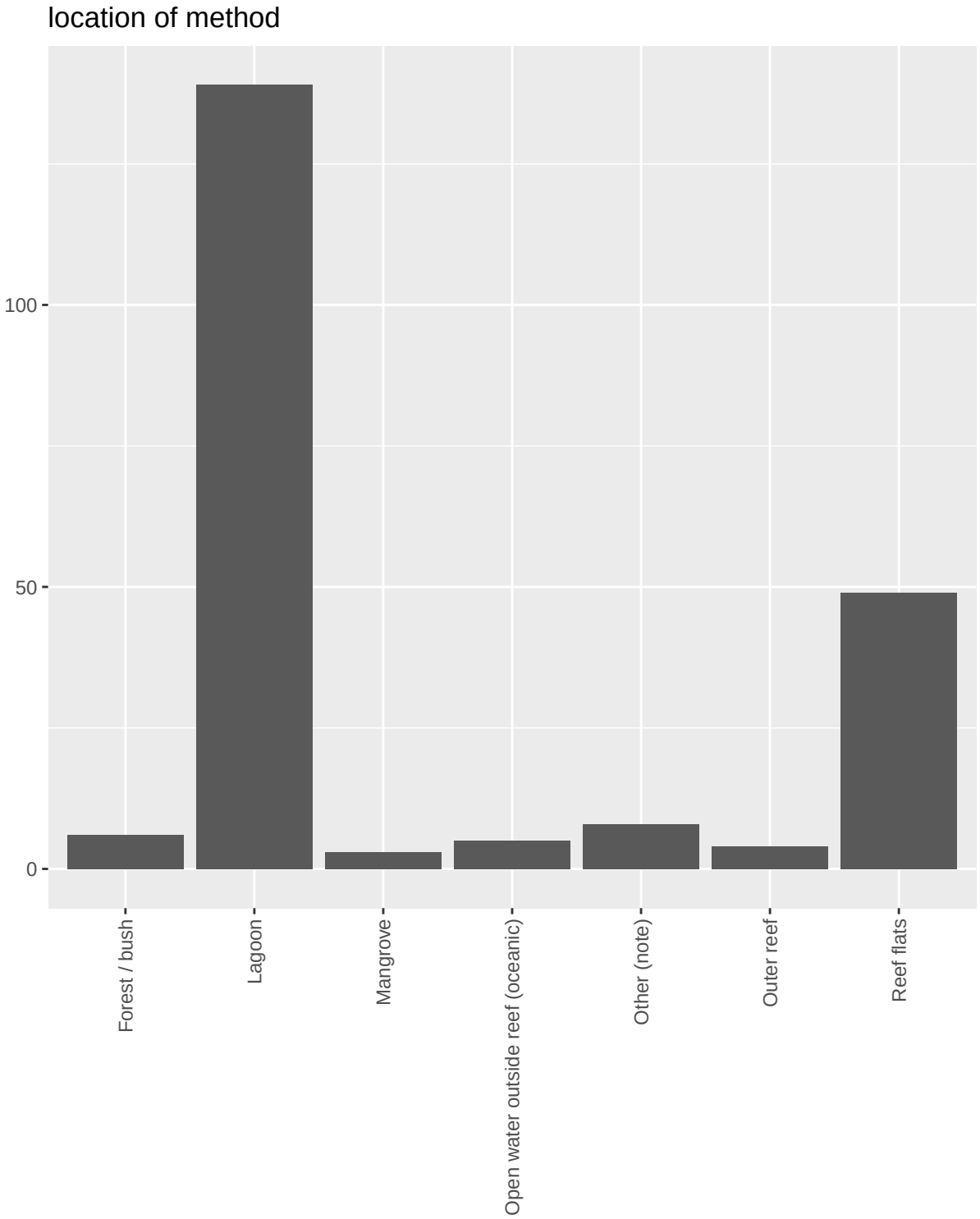

weight of catch using current method
60
40
20
0
0
100
200
300
400

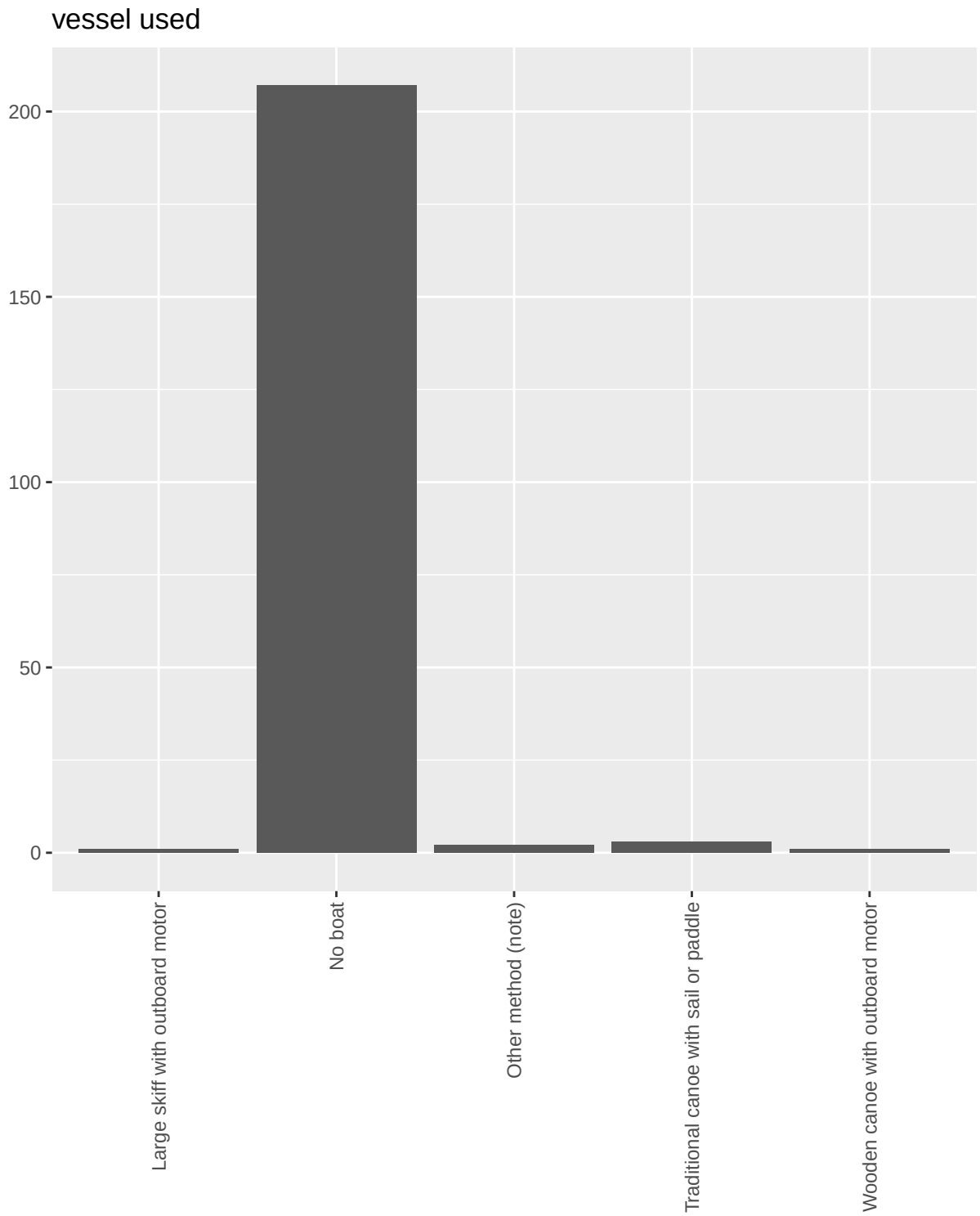

catch rating
80
60
40
20
0
Greater than usual
Lower than usual
Same as usual

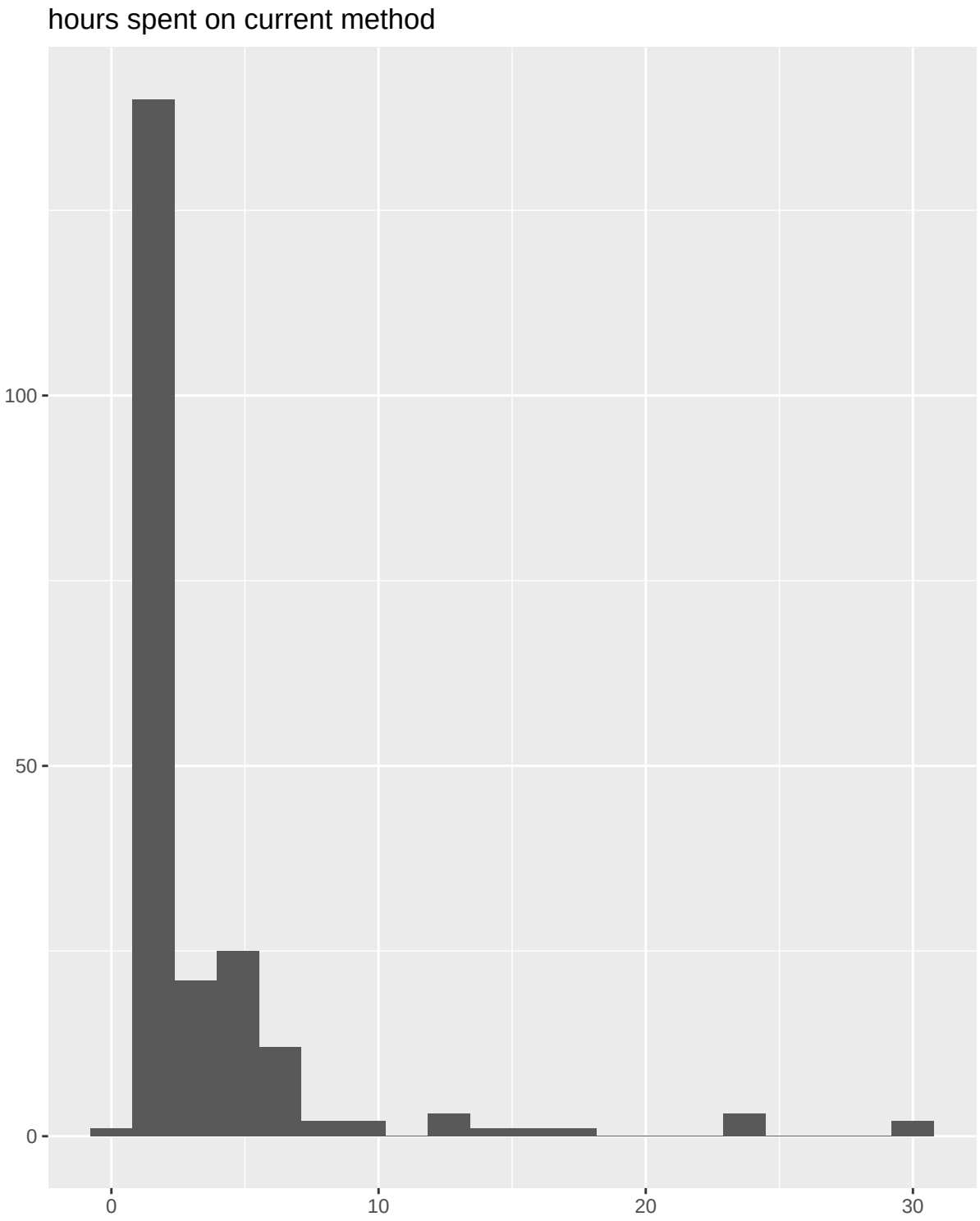
Fishing Method: Gleaning / Collecting

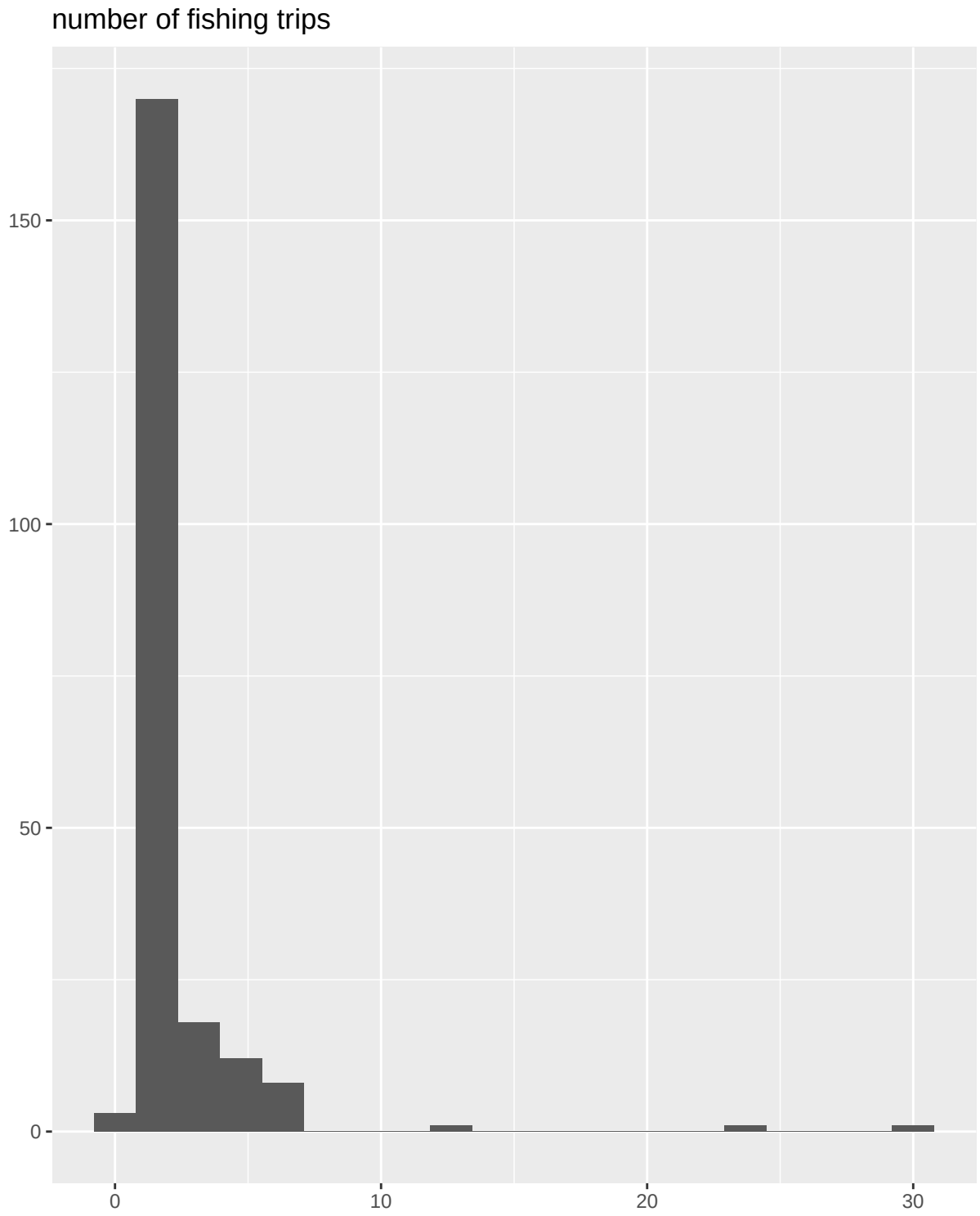


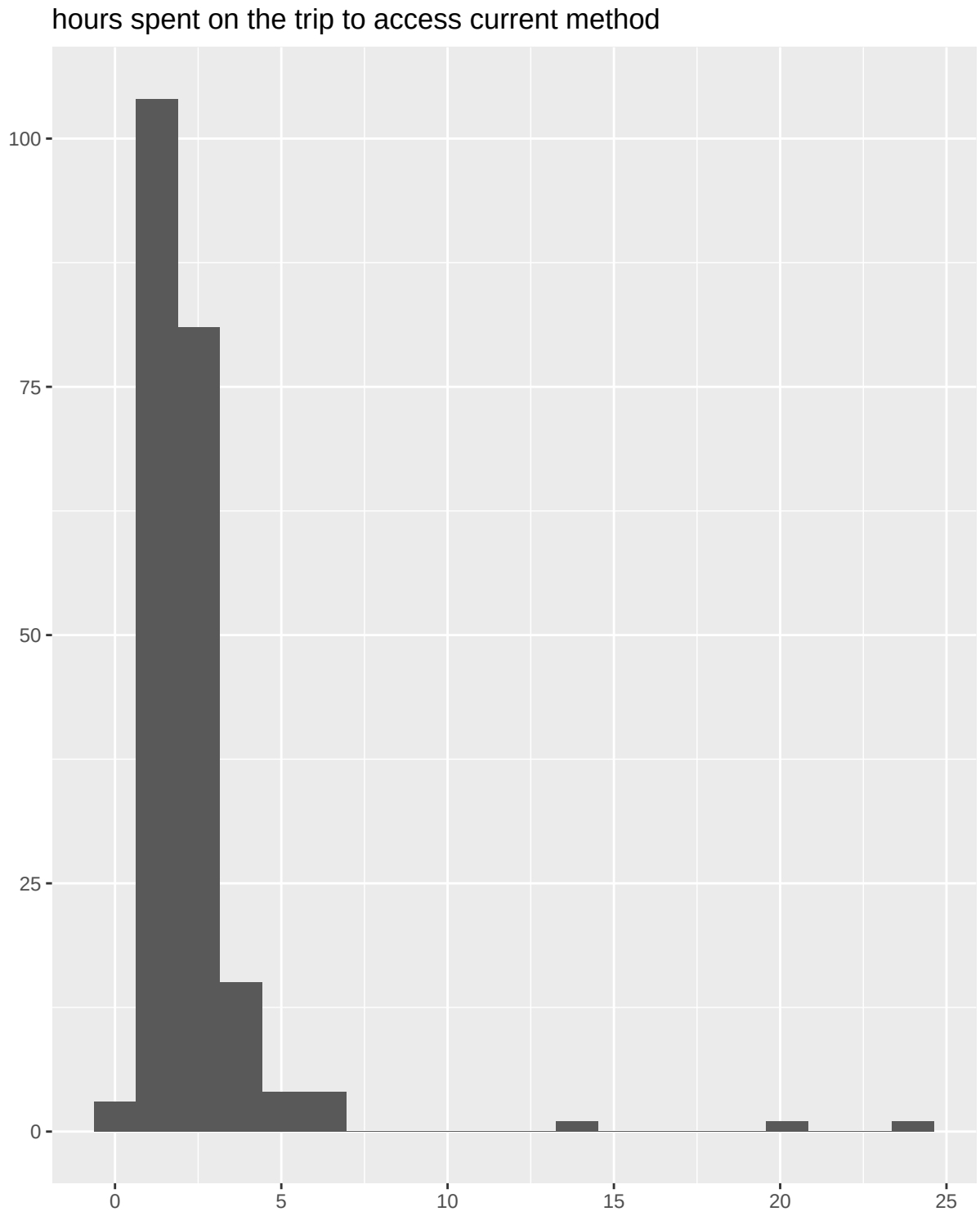

fishing period (zeroes removed; n = 173)
30
20
10
0
0.950
0.975
1.000
1.025
1.050

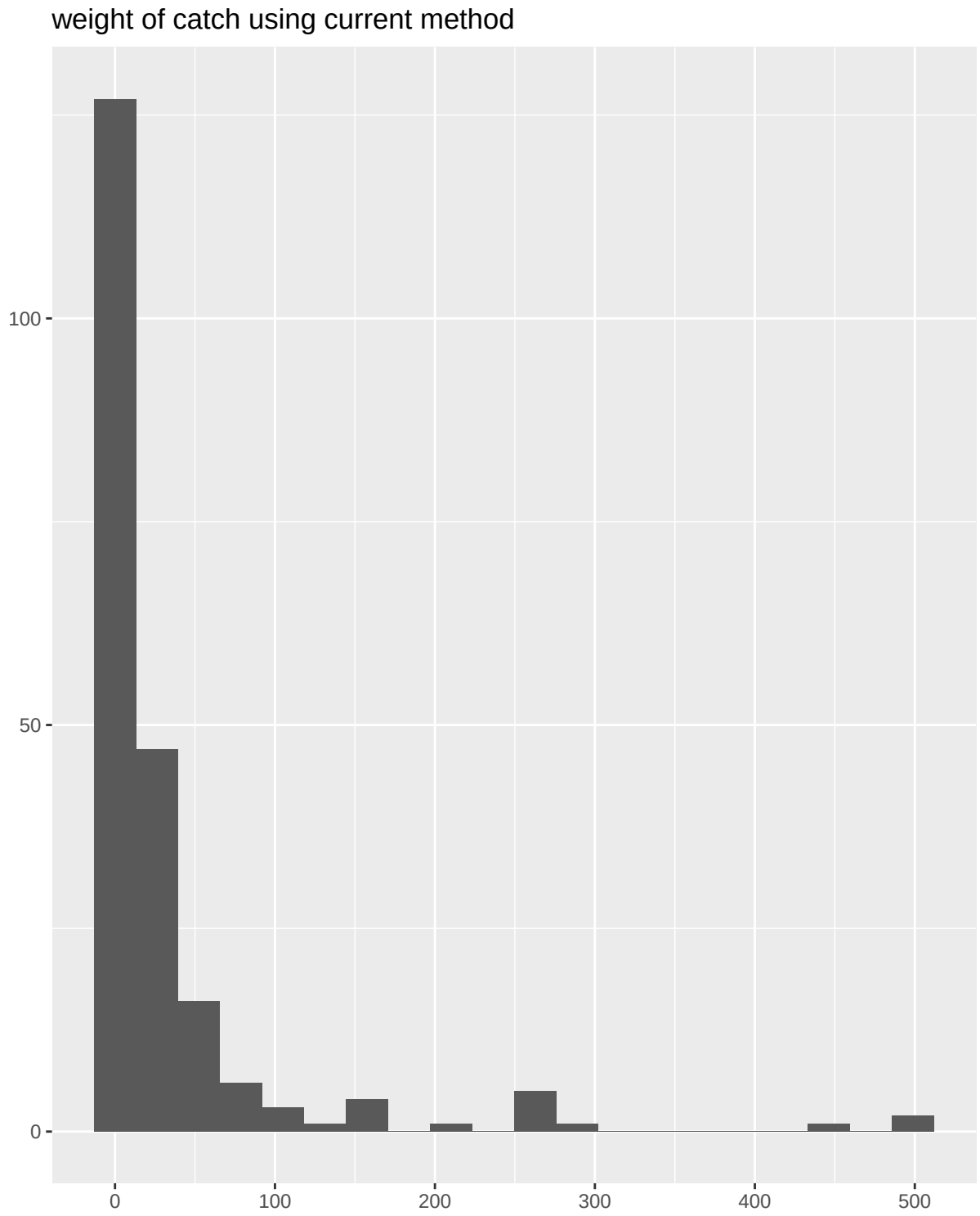

location of method
100
50
0
Forest / bush
Lagoon
Mangrove
Open water outside reef (oceanic)
Other (note)
Outer reef
Reef flats

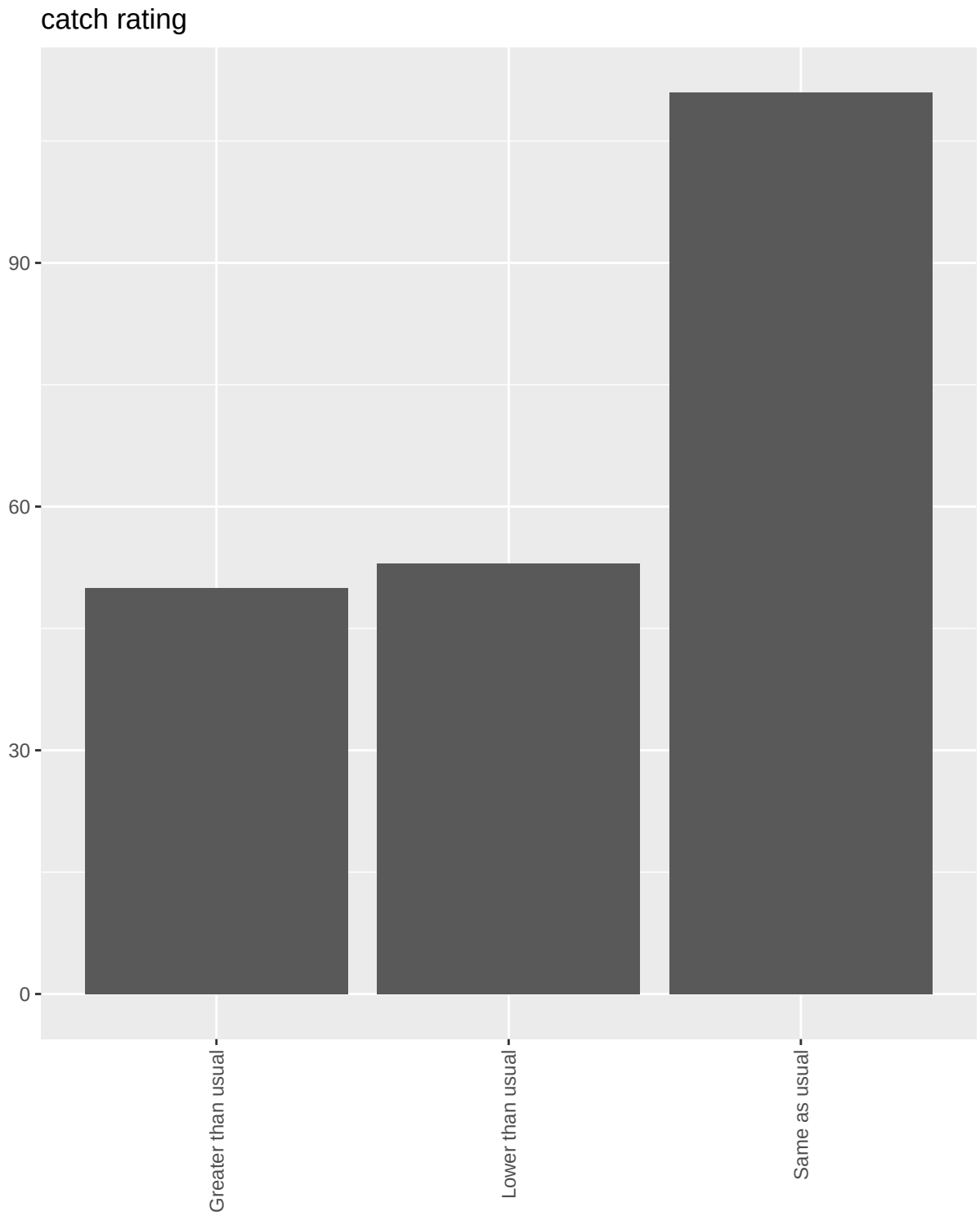

vessel used
200
150
100
50
0
Large skiff with outboard motor
No boat
Other method (note)
Traditional canoe with sail or paddle
Wooden canoe with outboard motor


hours spent on current method
100
50
0
0
10
20
30

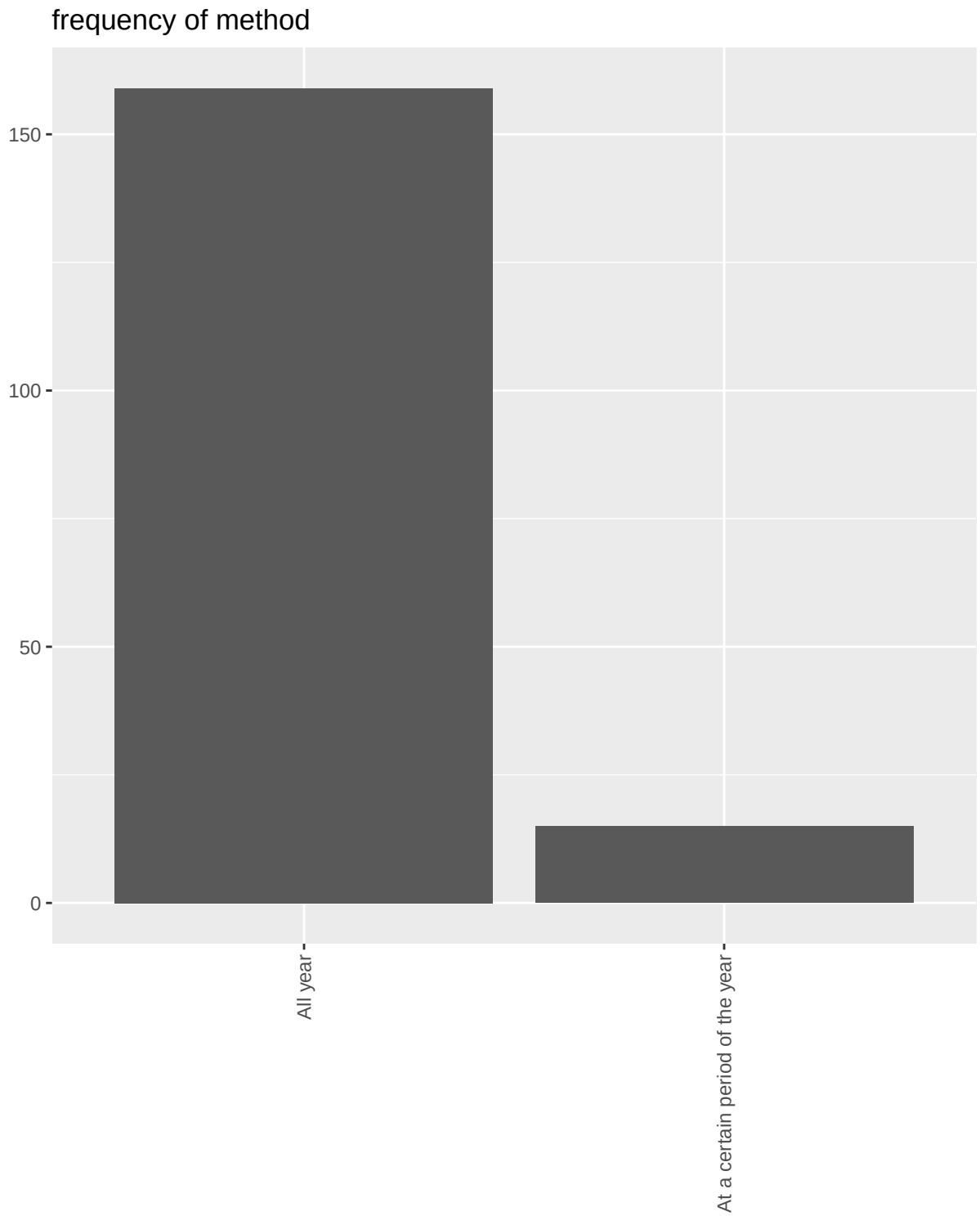

number of fishing trips
150
100
50
0
0
10
20
30

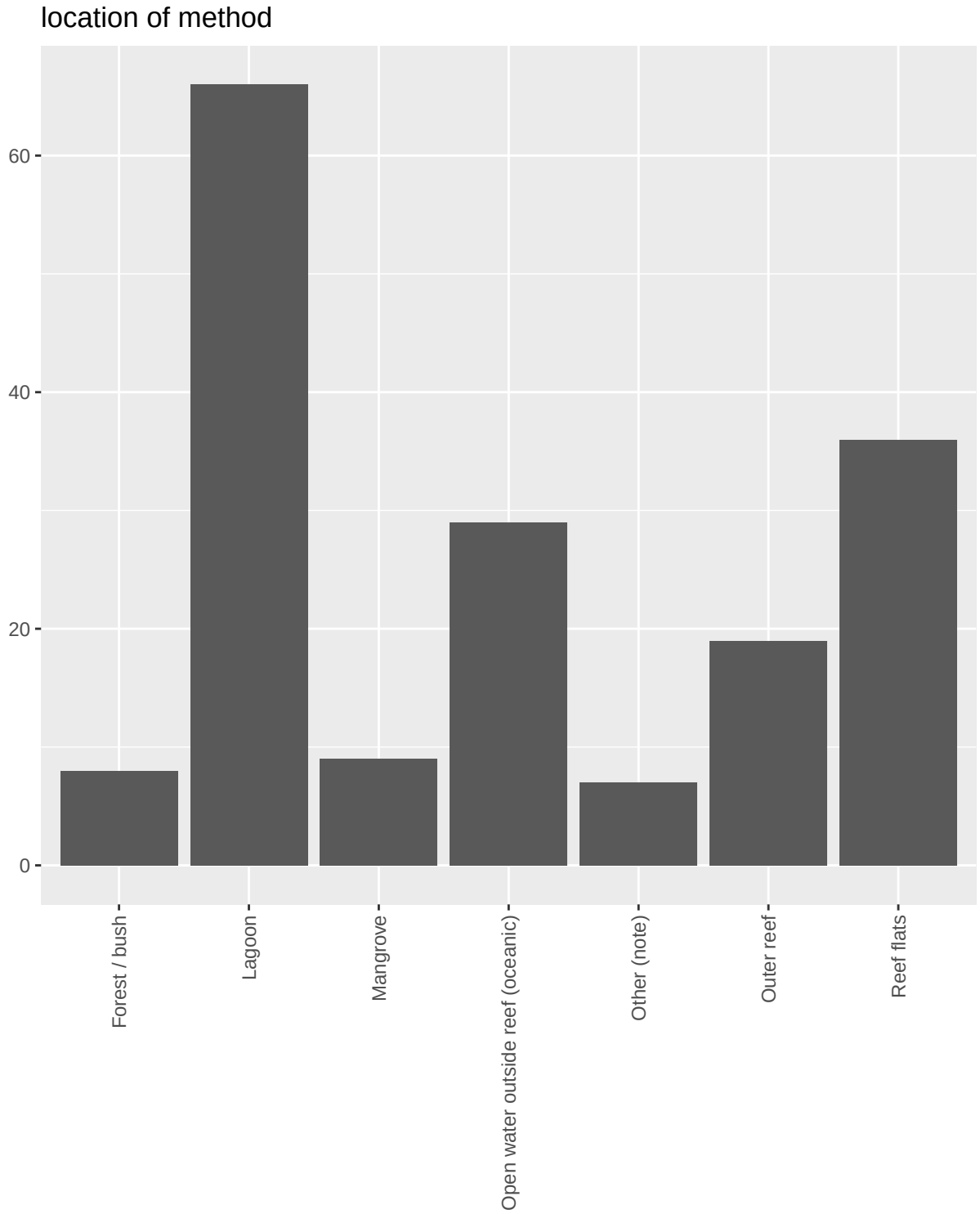

hours spent on the trip to access current method
100
75
50
25
0
0
5
10
15
20
25

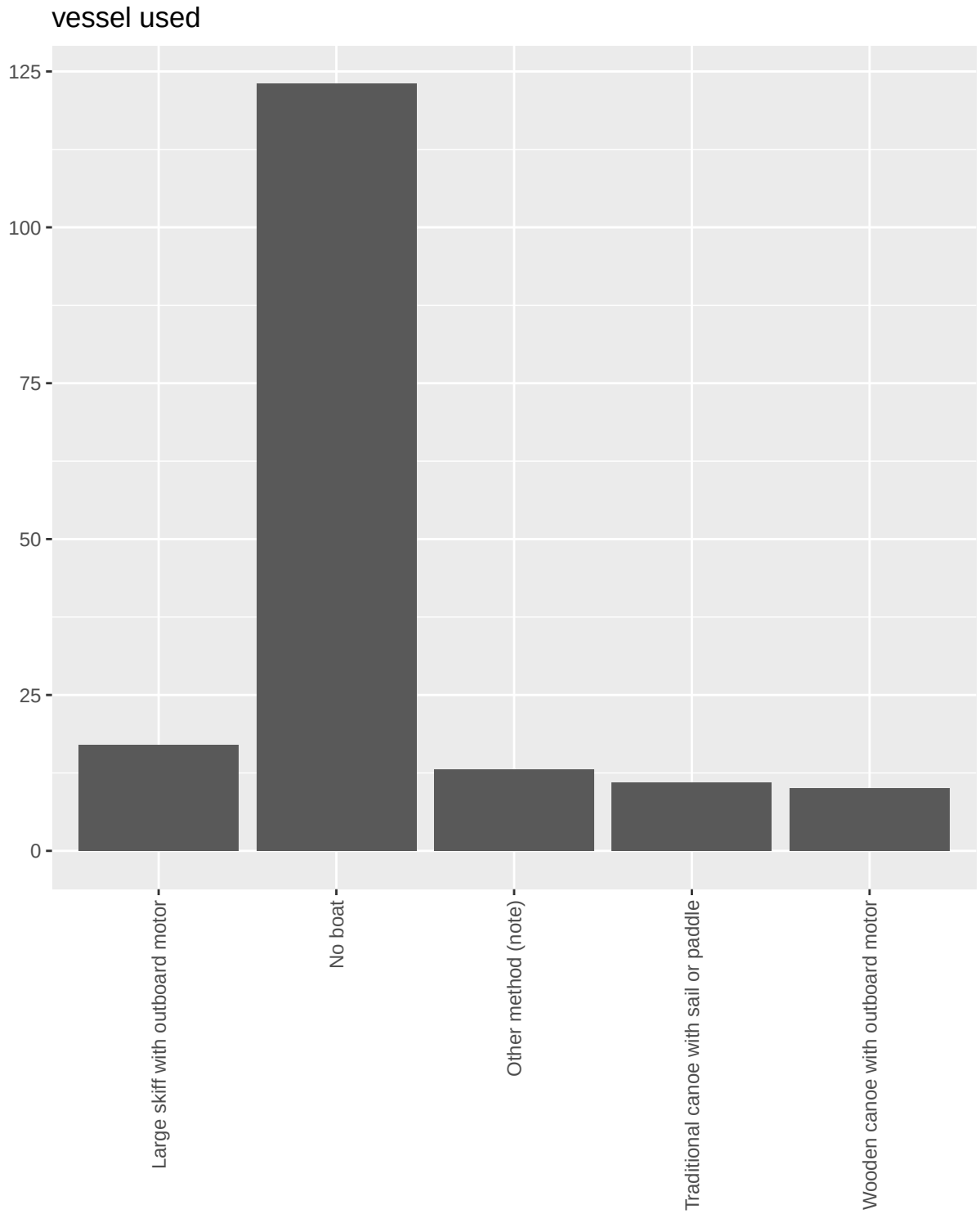

weight of catch using current method
100
50
0
0
100
200
300
400
500

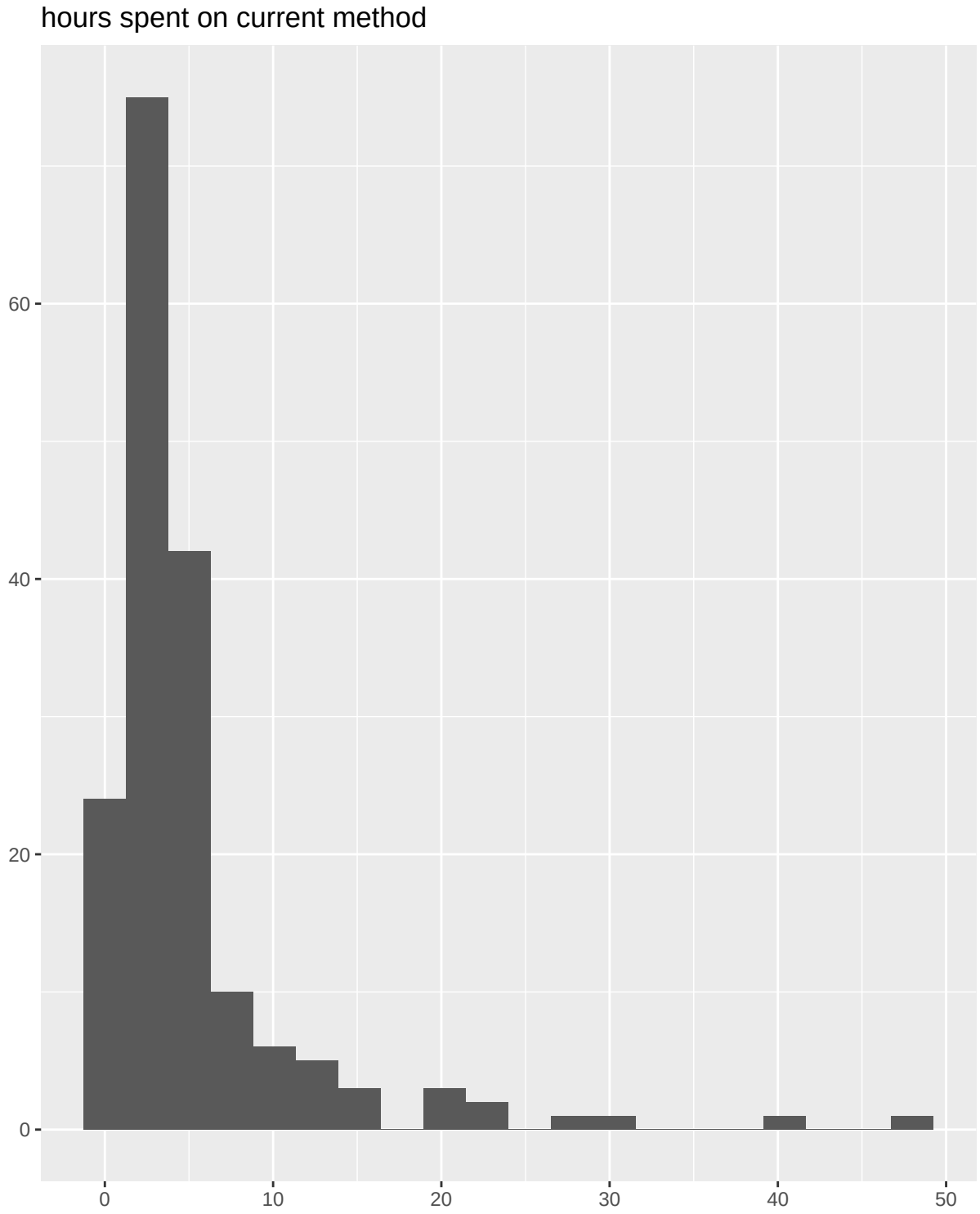

catch rating
90
60
30
0
Greater than usual
Lower than usual
Same as usual

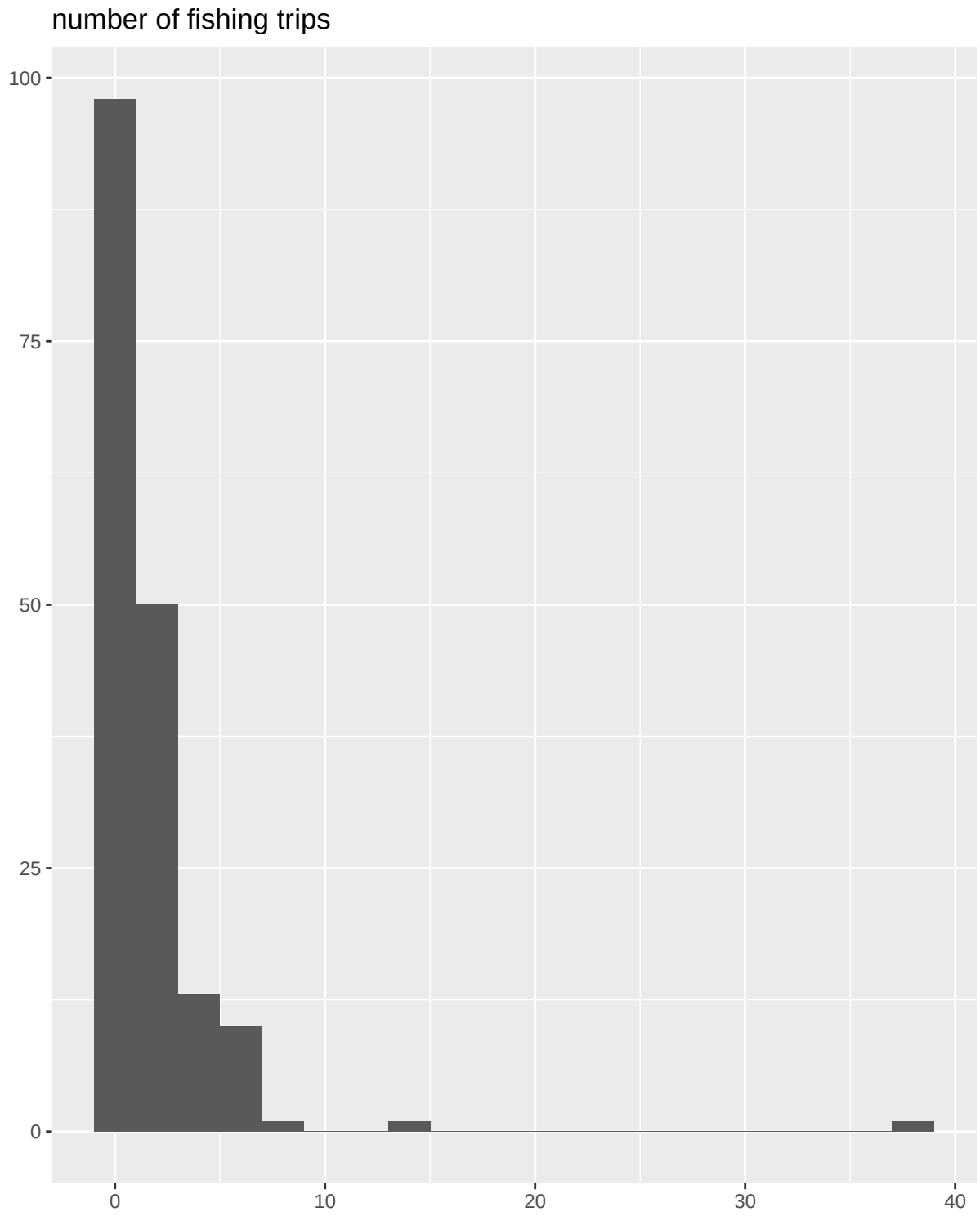
Fishing Method: Other (note)

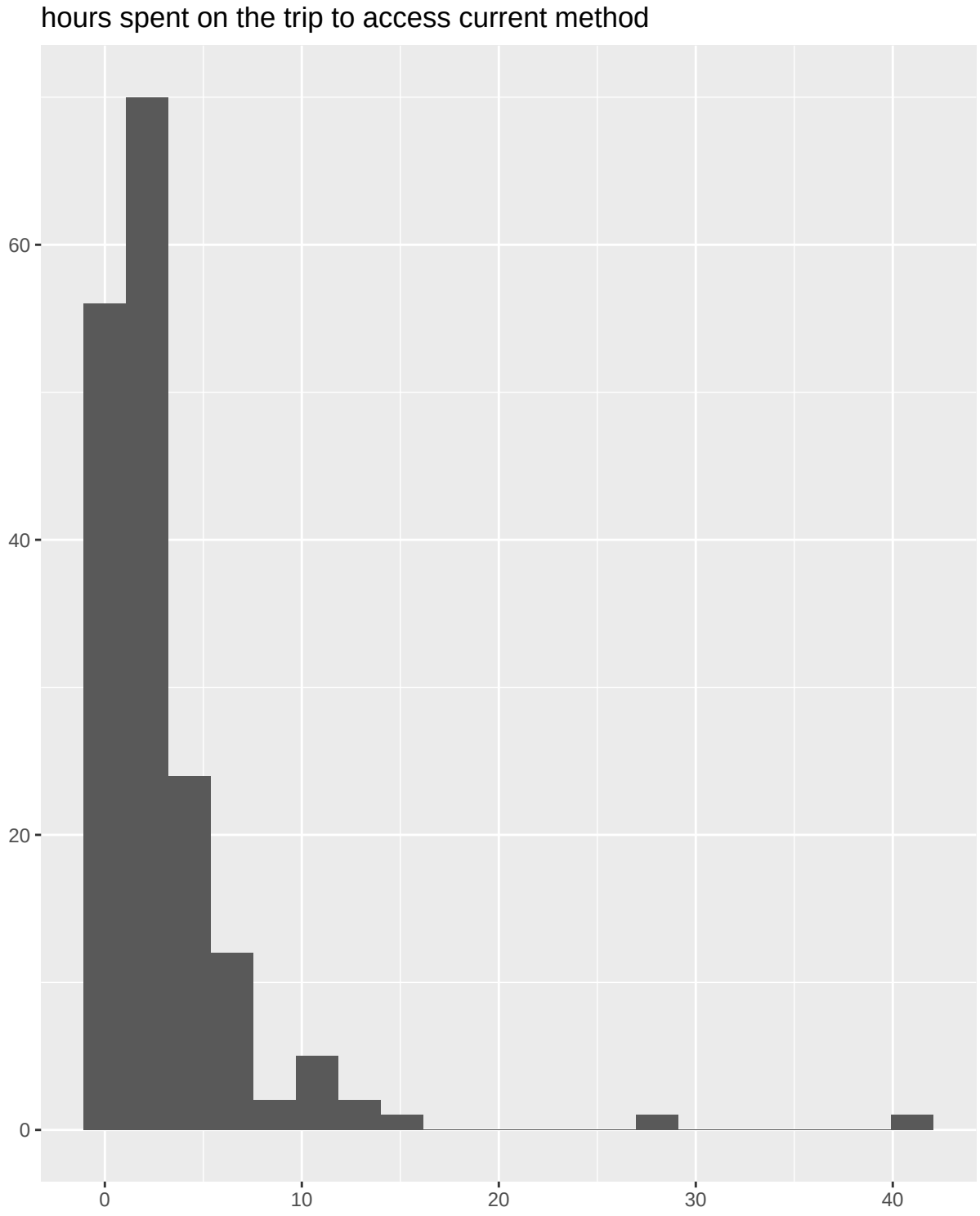


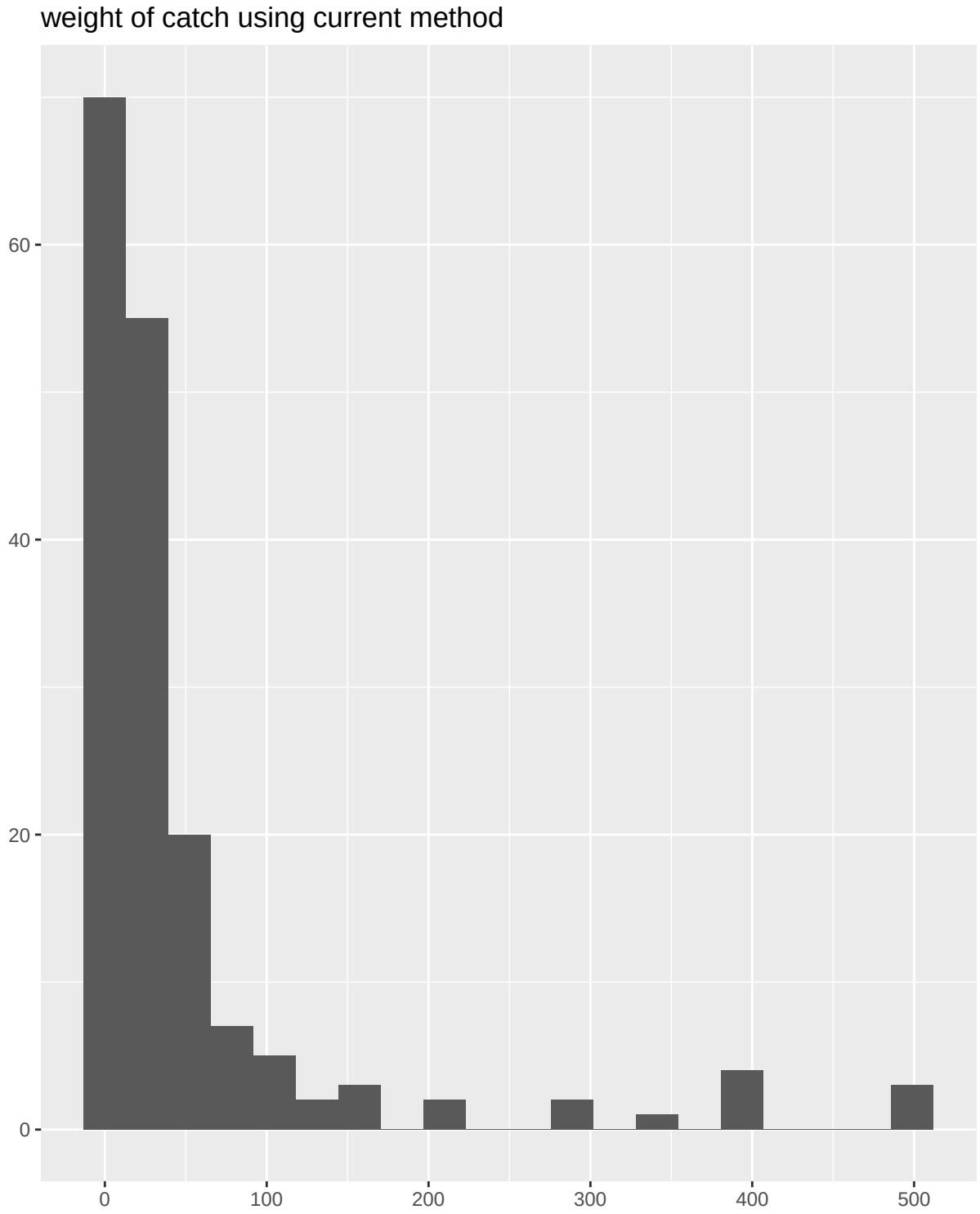

location of method
60
40
20
0
Forest / bush
Lagoon
Mangrove
Open water outside reef (oceanic)
Other (note)
Outer reef
Reef flats

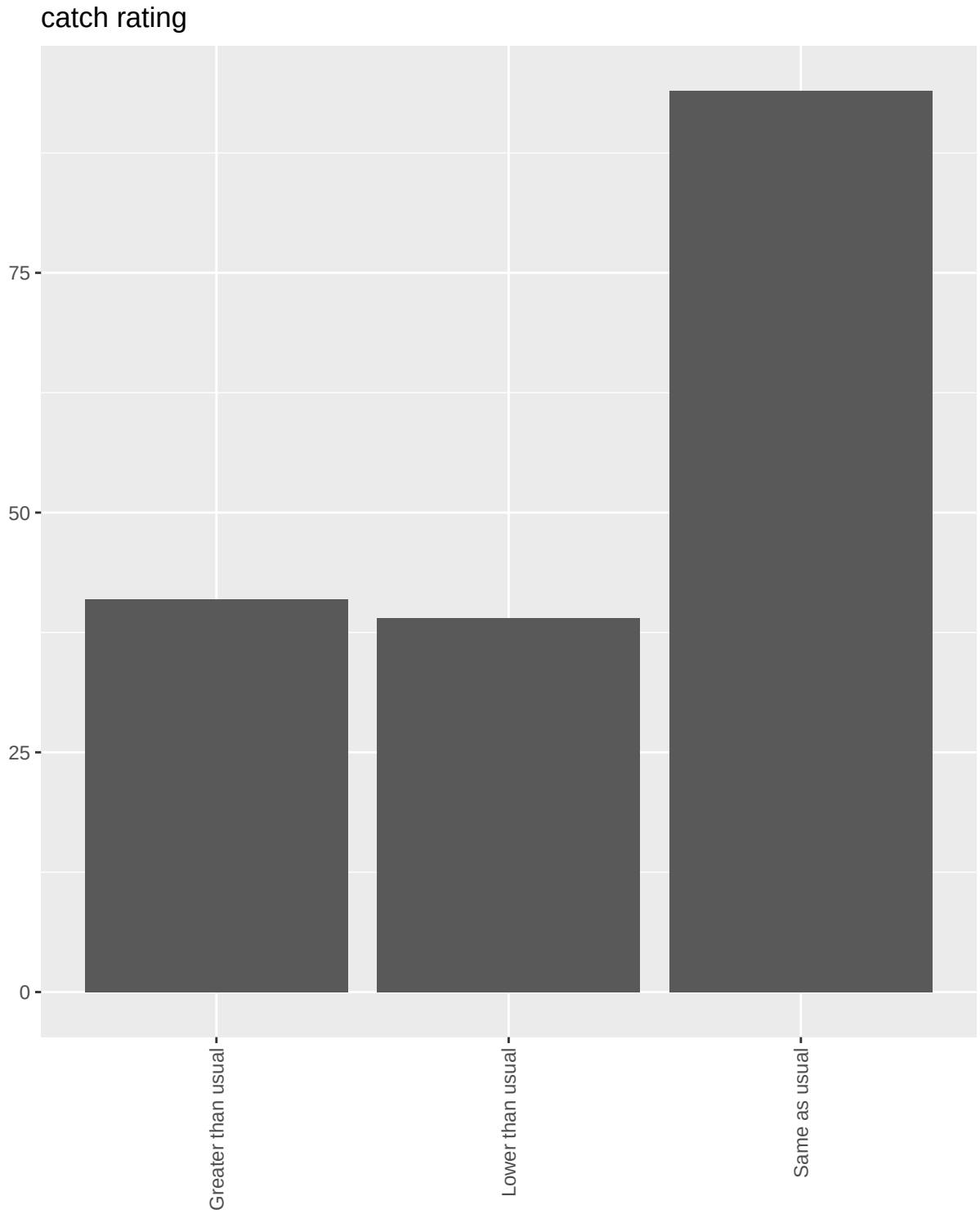

vessel used
125
100
75
50
25
0
Large skiff with outboard motor
No boat
Other method (note)
Traditional canoe with sail or paddle
Wooden canoe with outboard motor

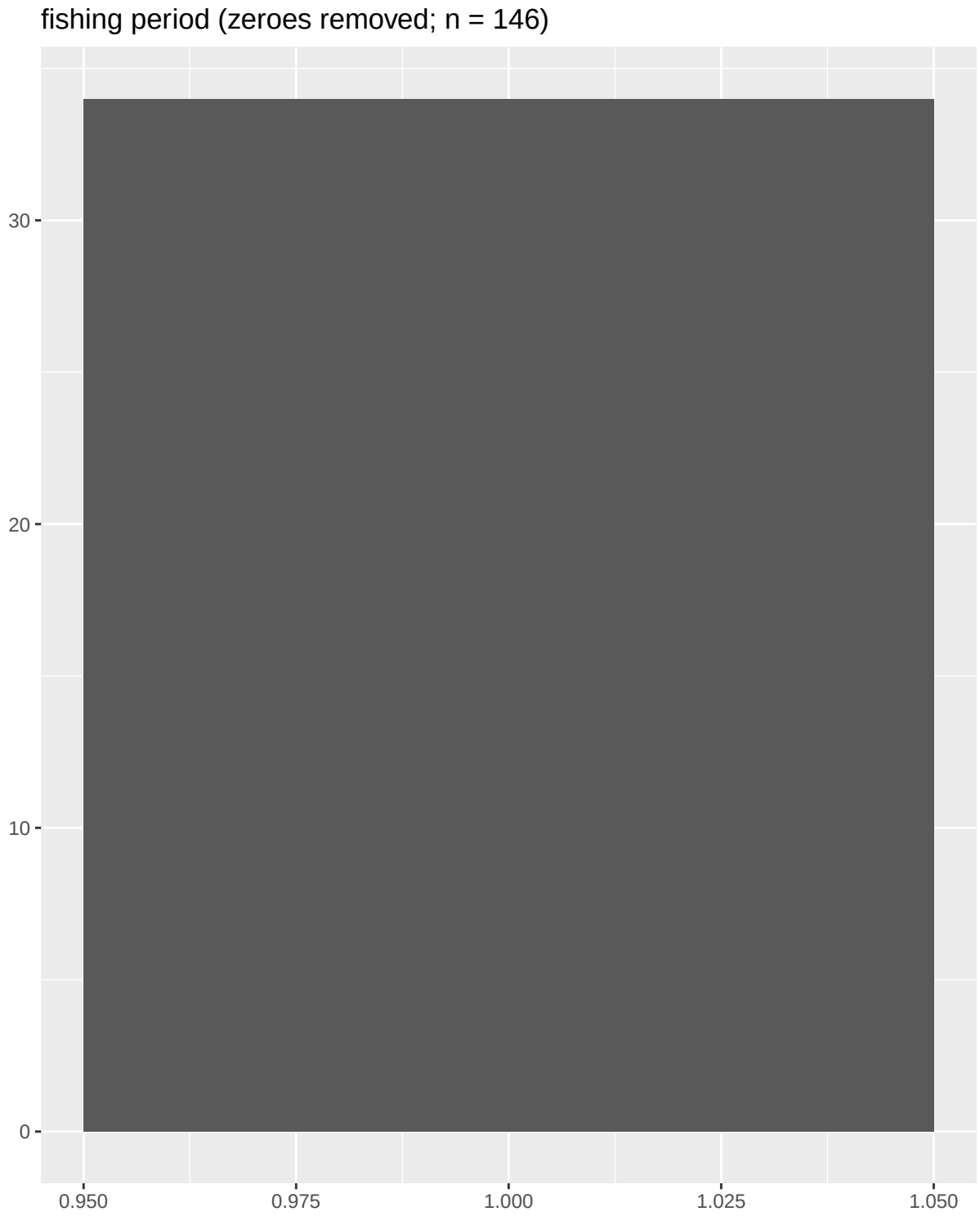

hours spent on current method
60
40
20
0
0
10
20
30
40
50


number of fishing trips
100
75
50
25
0
0
10
20
30
40

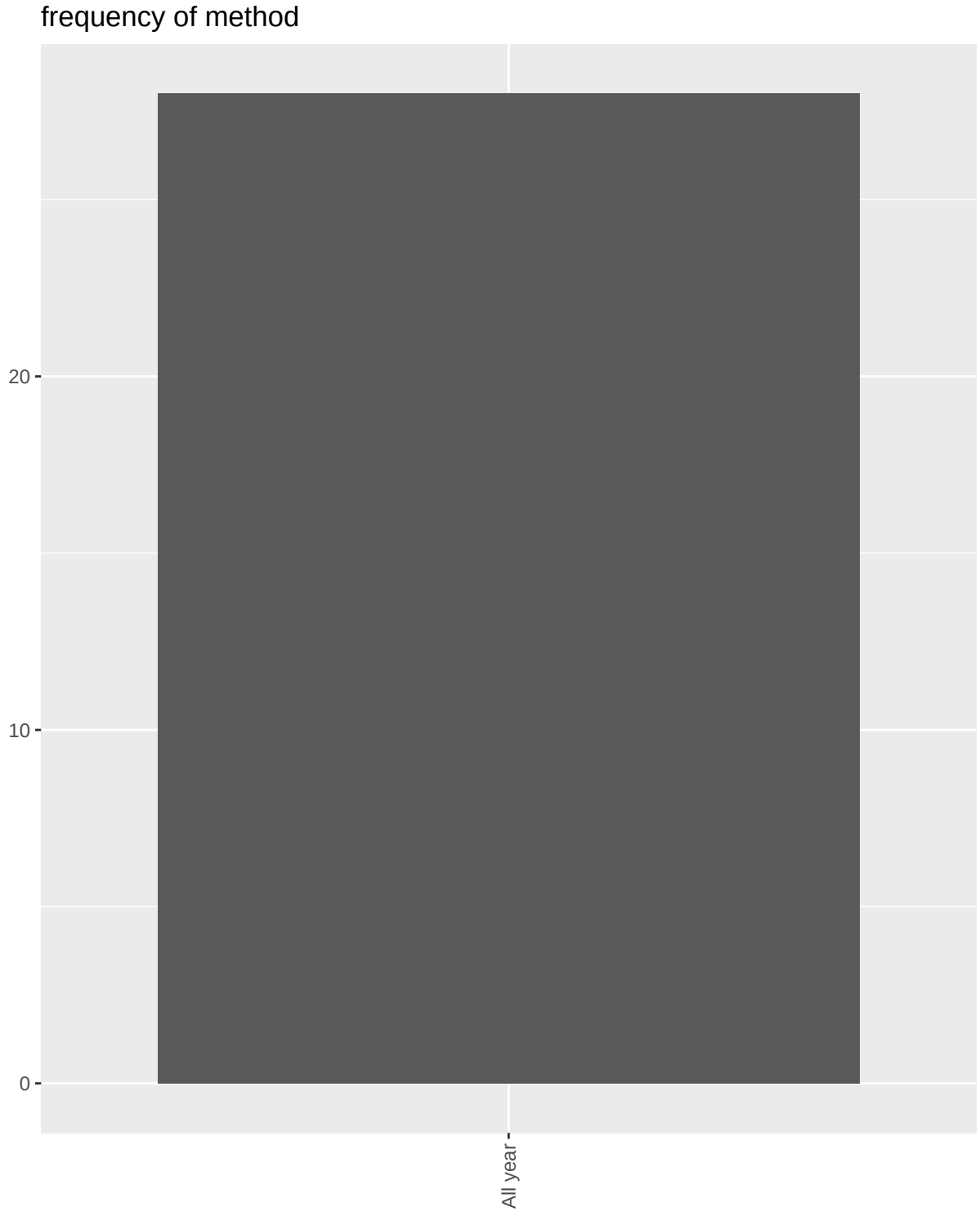

hours spent on the trip to access current method
60
40
20
0
0
10
20
30
40

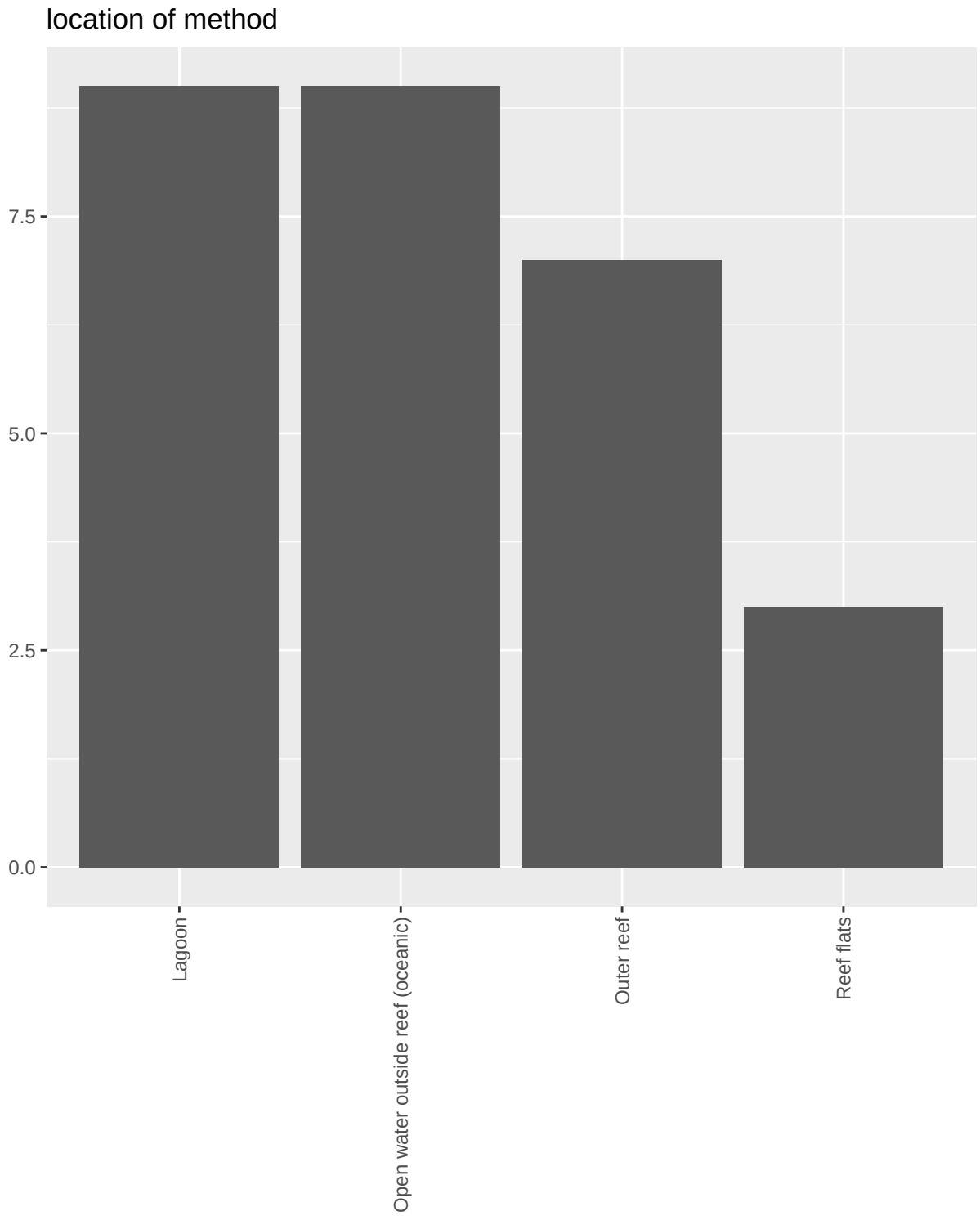

weight of catch using current method
60
40
20
0
0
100
200
300
400
500

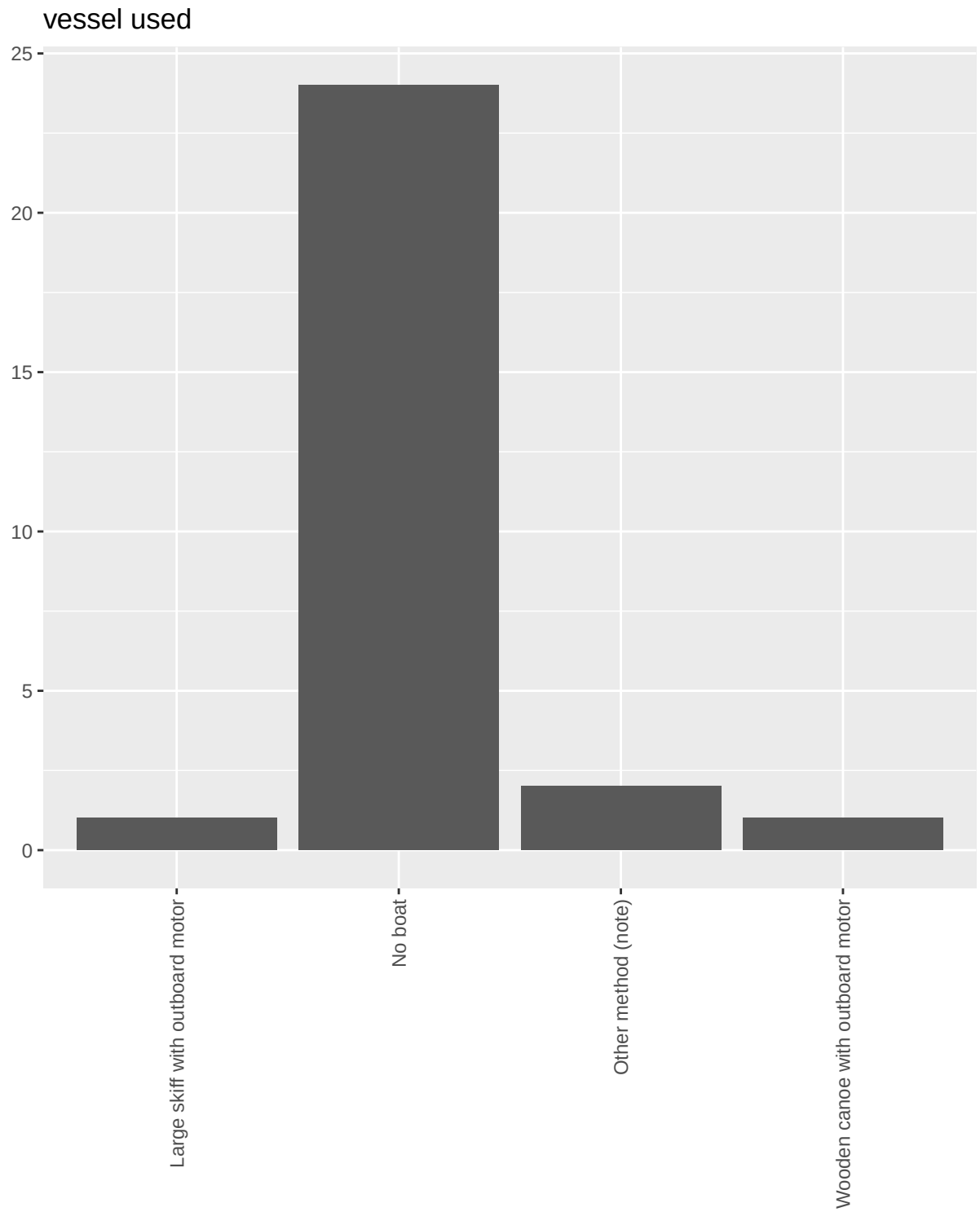

catch rating
75
50
25
0
Greater than usual
Lower than usual
Same as usual

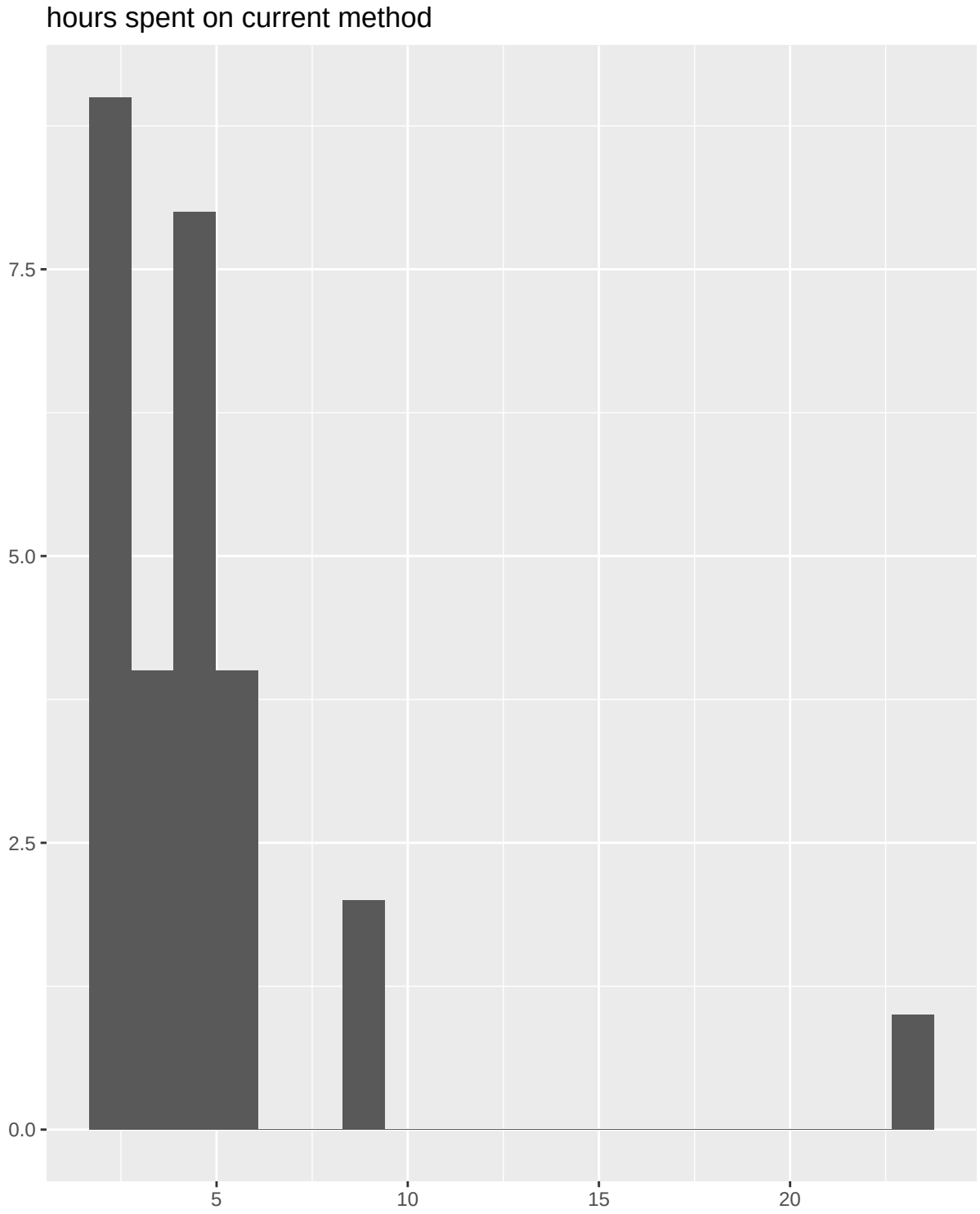

fishing period (zeroes removed; n = 146)
30
20
10
0
0.950
0.975
1.000
1.025
1.050

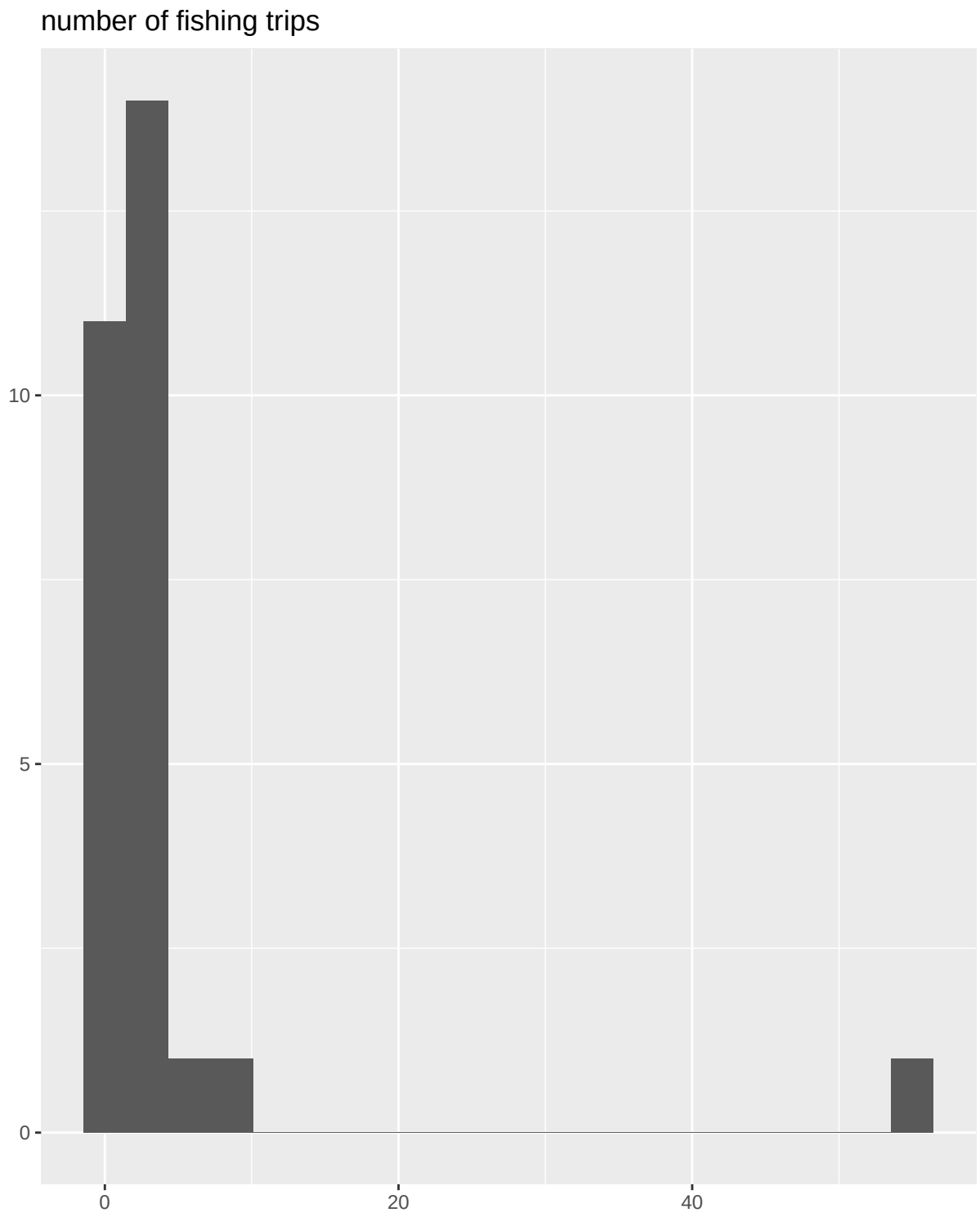
Fishing Method: Spearfishing night (Te katebe te tairiki)

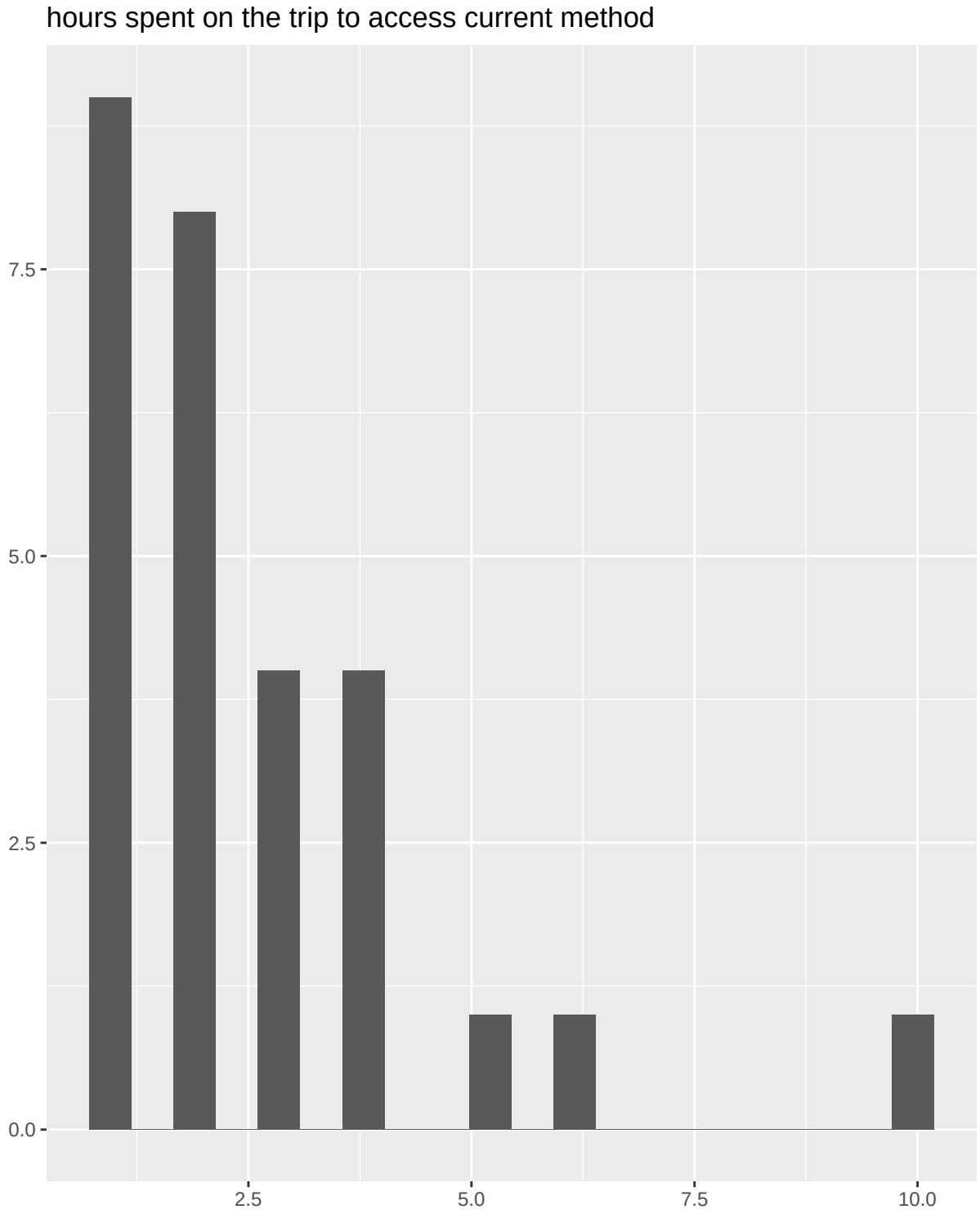


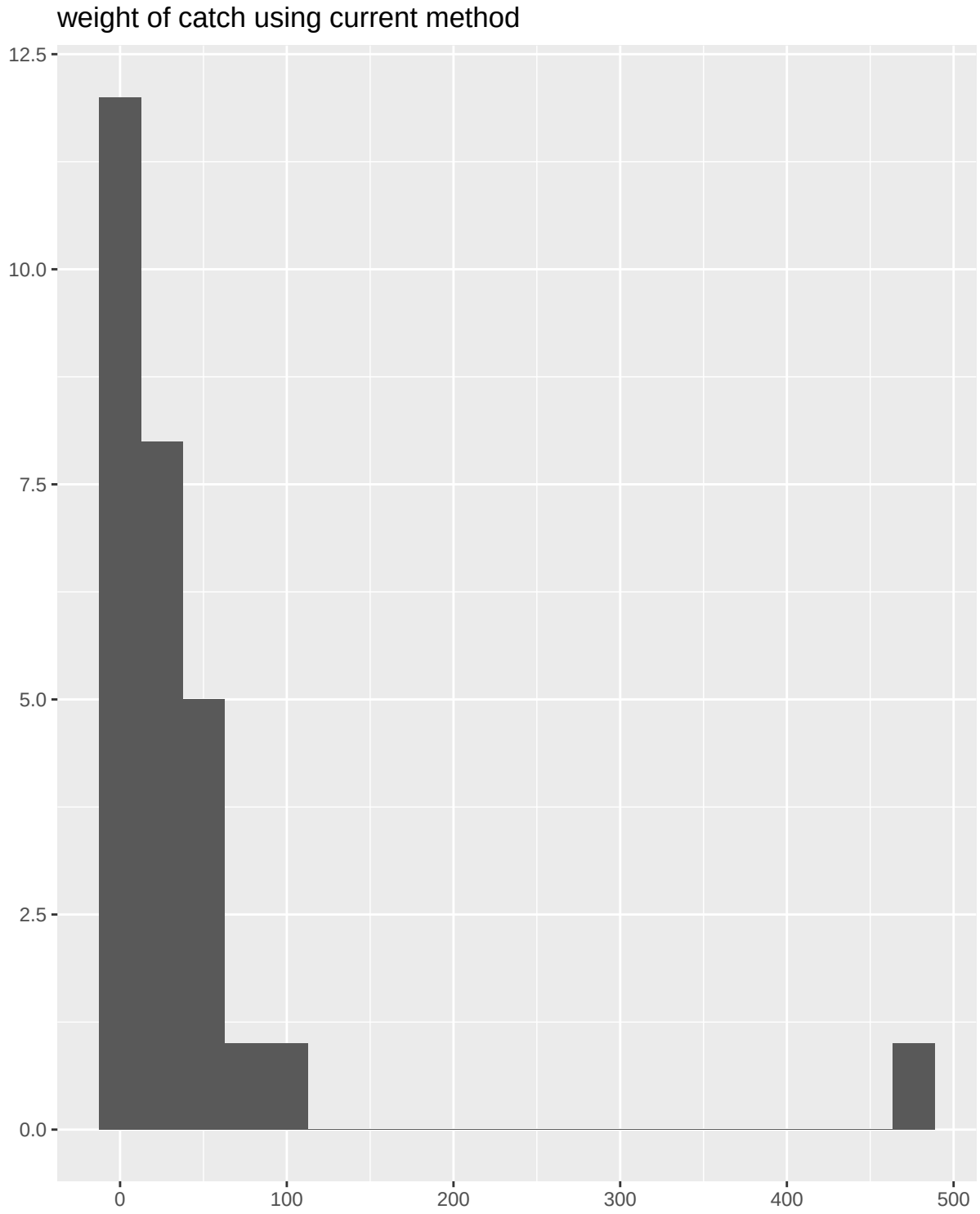

location of method
7.5
5.0
2.5
0.0
Lagoon
Open water outside reef (oceanic)
Outer reef
Reef flats

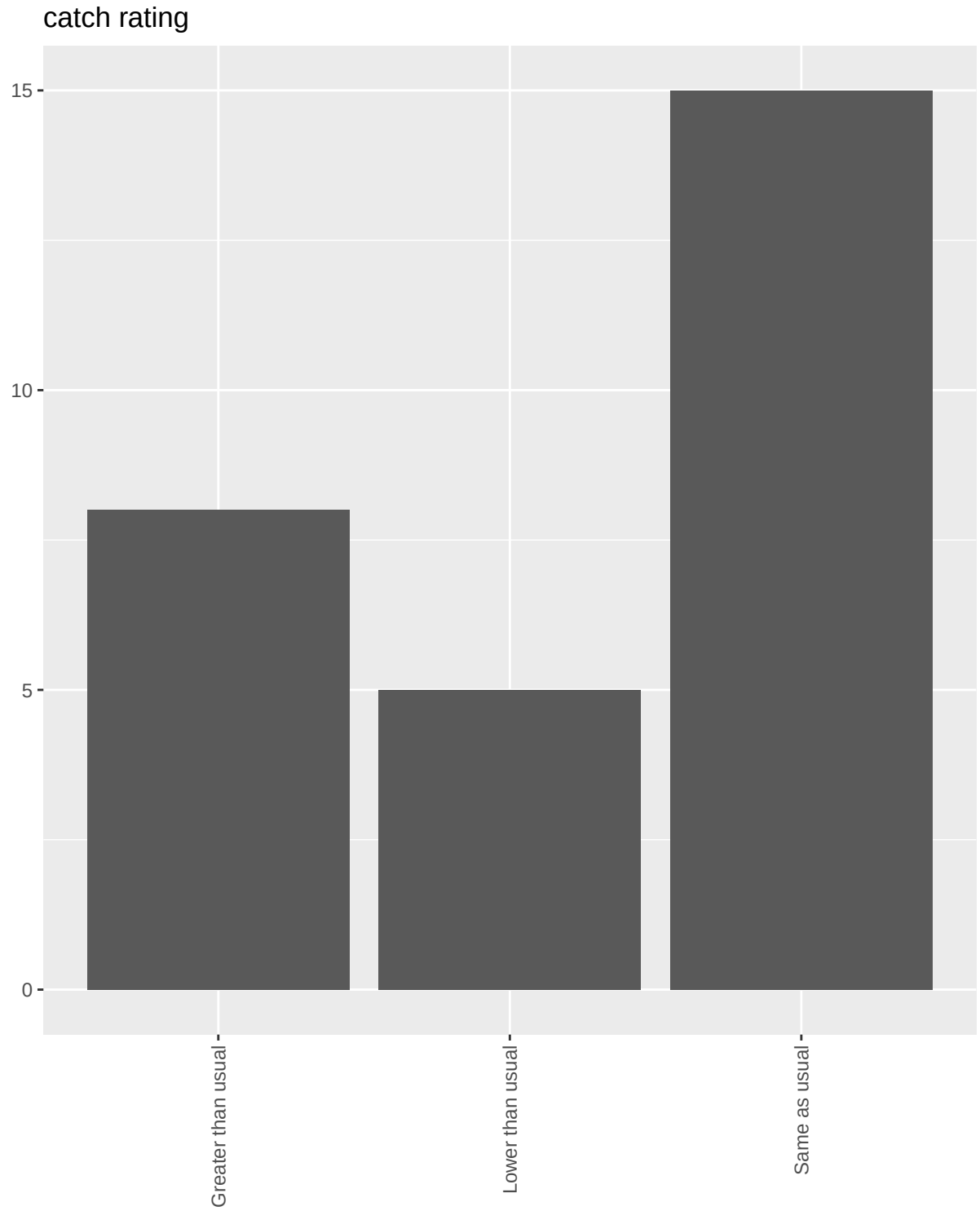

vessel used
25
20
15
10
5
0
Large skiff with outboard motor
No boat
Other method (note)
Wooden canoe with outboard motor


hours spent on current method
7.5
5.0
2.5
0.0
5
10
15
20

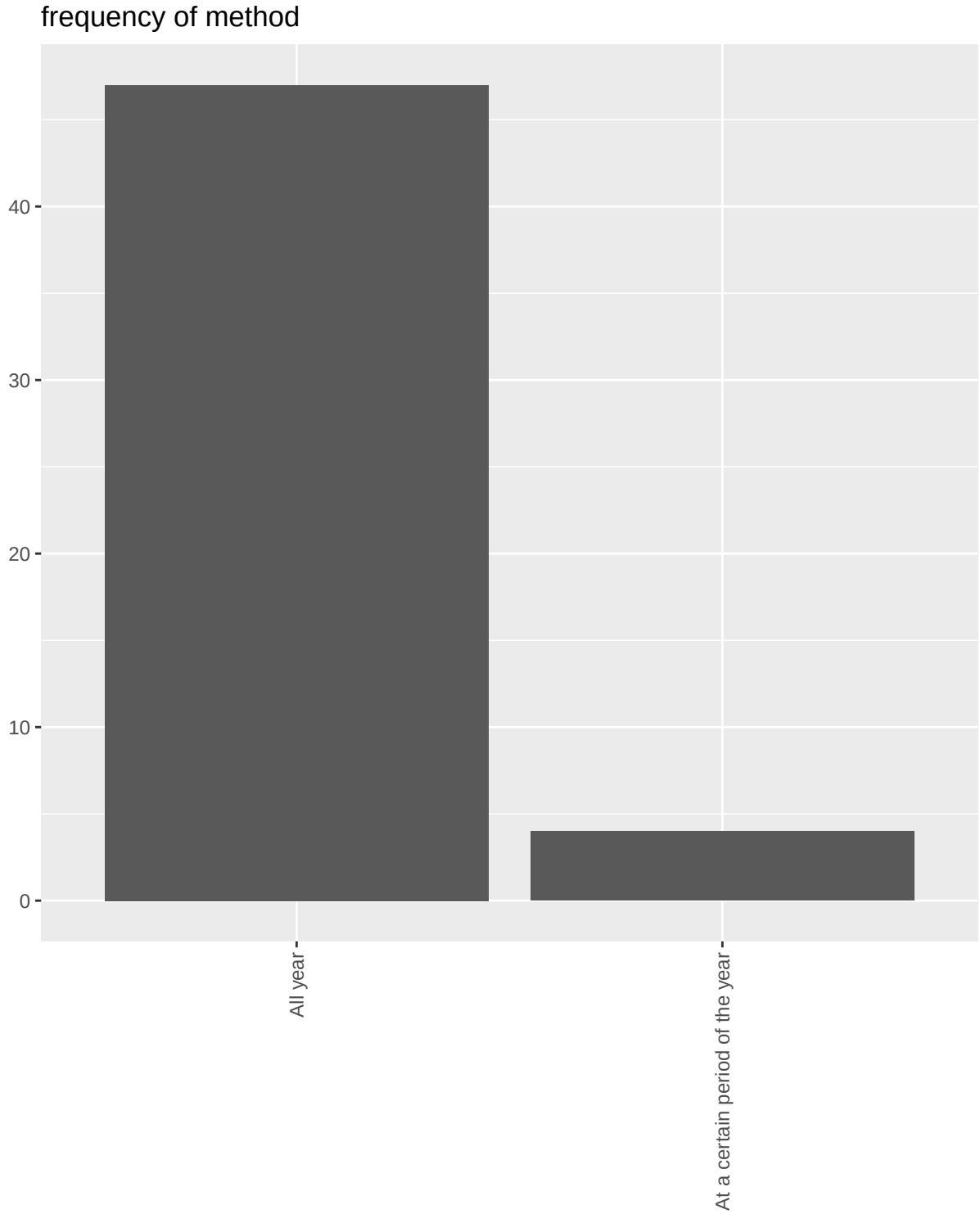

number of fishing trips
10
5
0
0
20
40

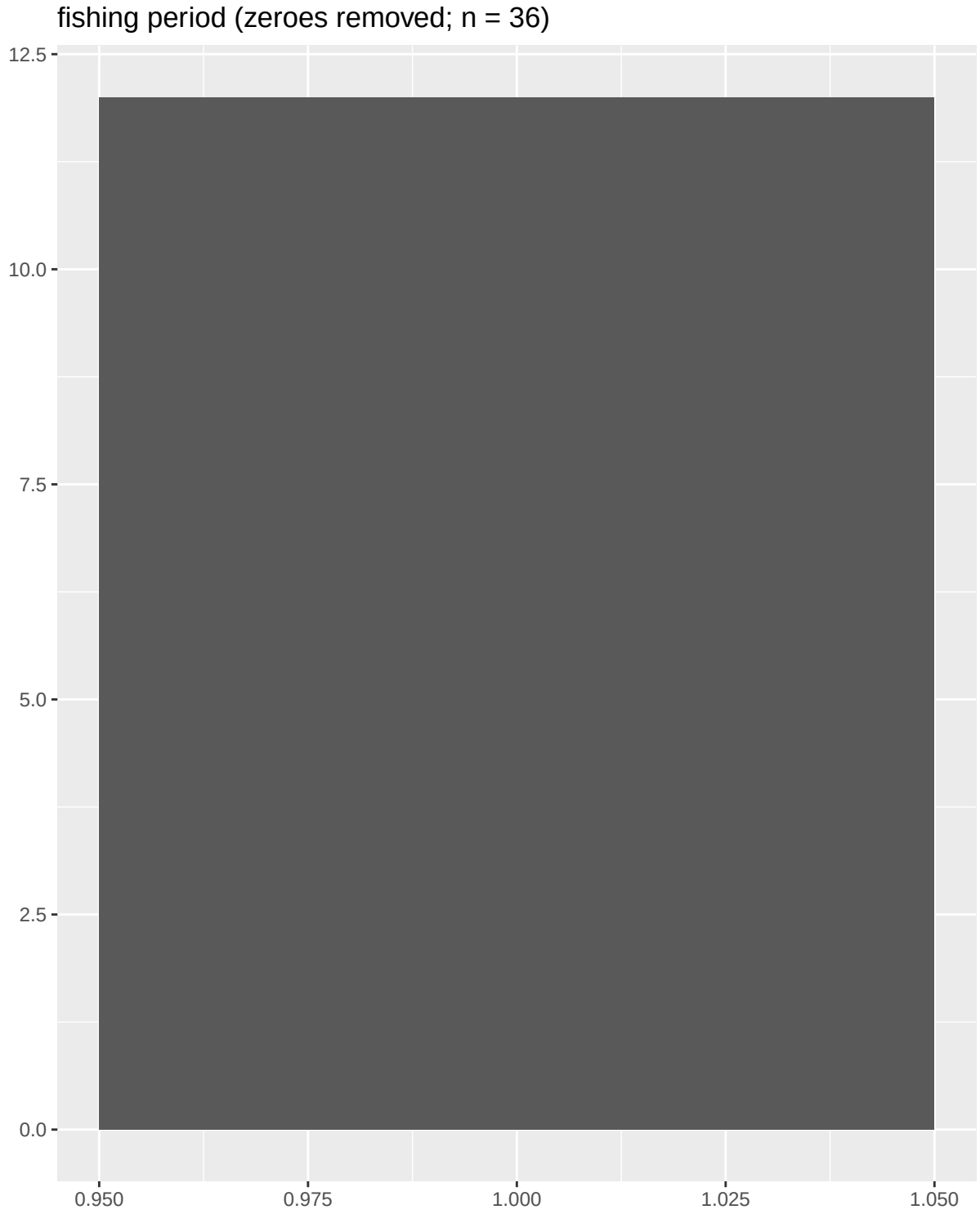

hours spent on the trip to access current method
7.5
5.0
2.5
0.0
2.5
5.0
7.5
10.0

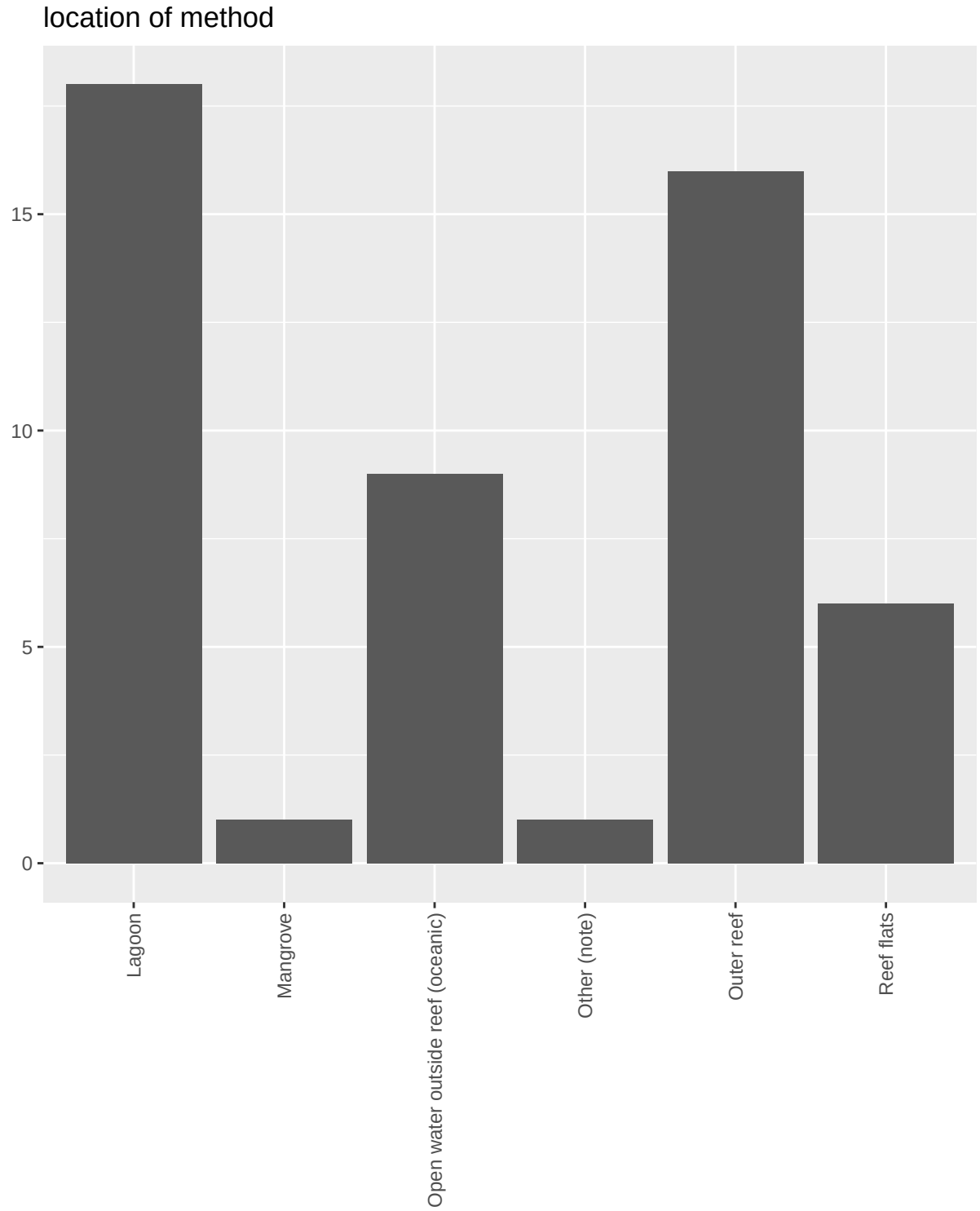

weight of catch using current method
12.5
10.0
7.5
5.0
2.5
0.0
0
100
200
300
400
500

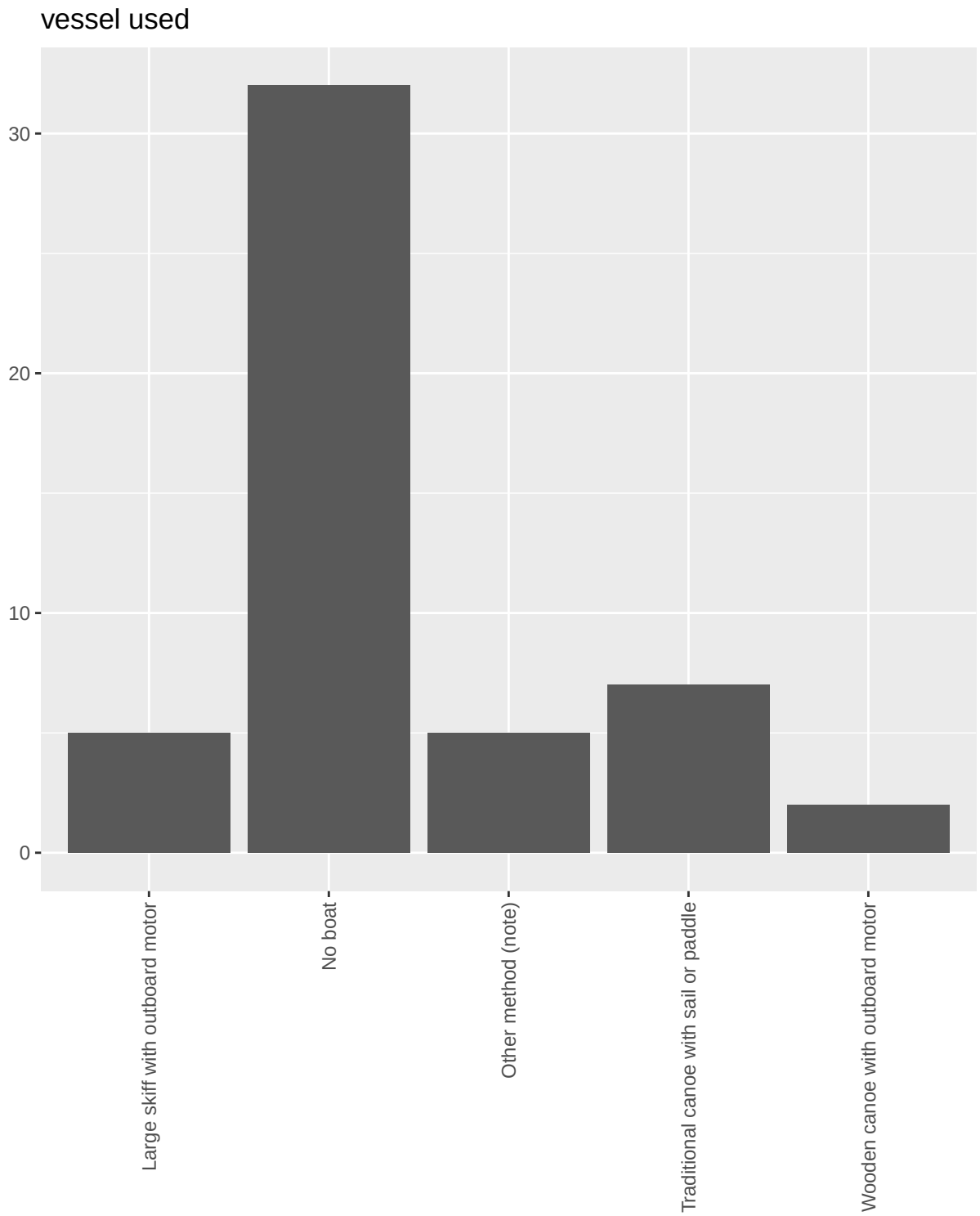

catch rating
15
10
5
0
Greater than usual
Lower than usual
Same as usual

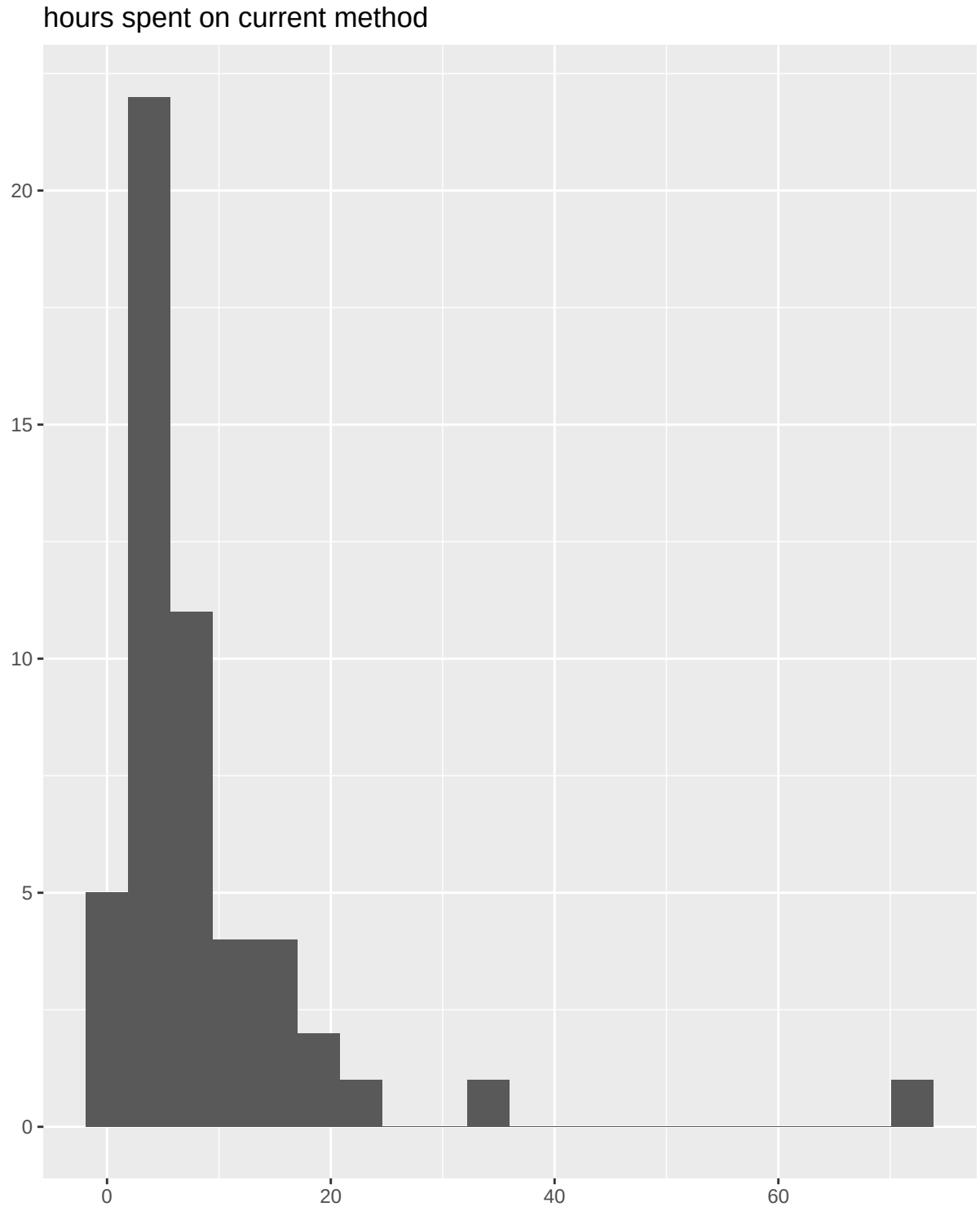
Fishing Method: Spearfishing day ((Te katebe te ngaina)

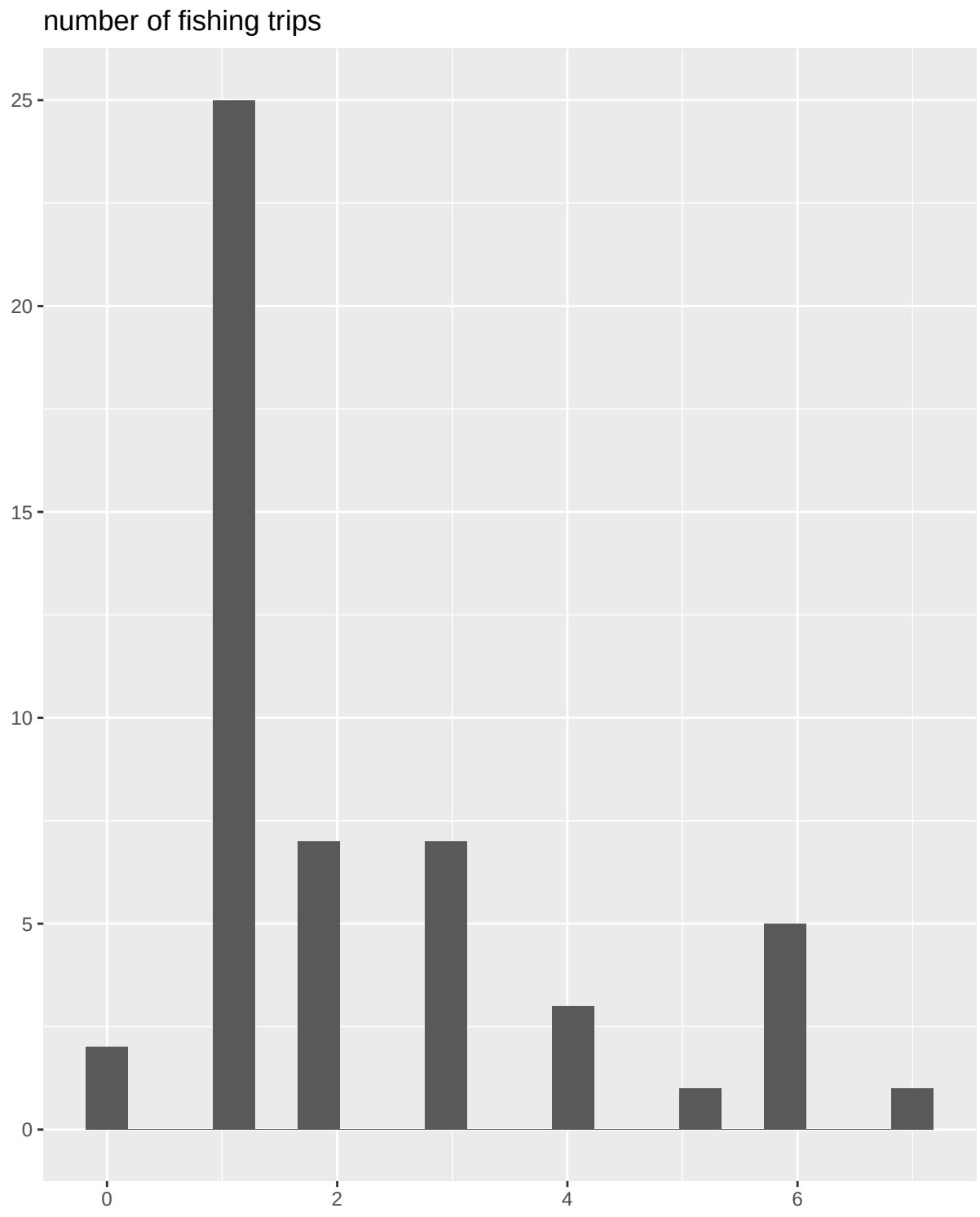


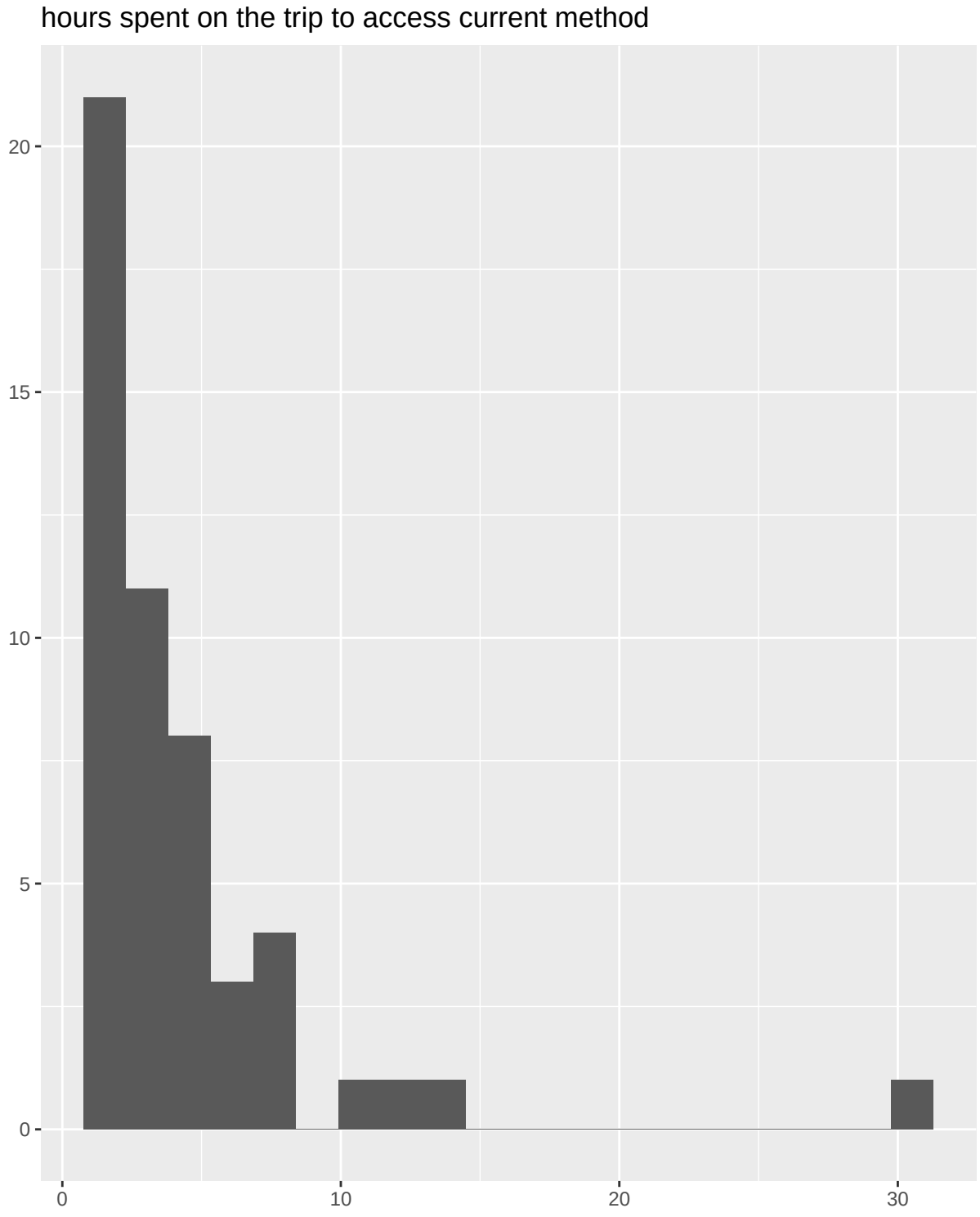

fishing period (zeroes removed; n = 36)
12.5
10.0
7.5
5.0
2.5
0.0
0.950
0.975
1.000
1.025
1.050

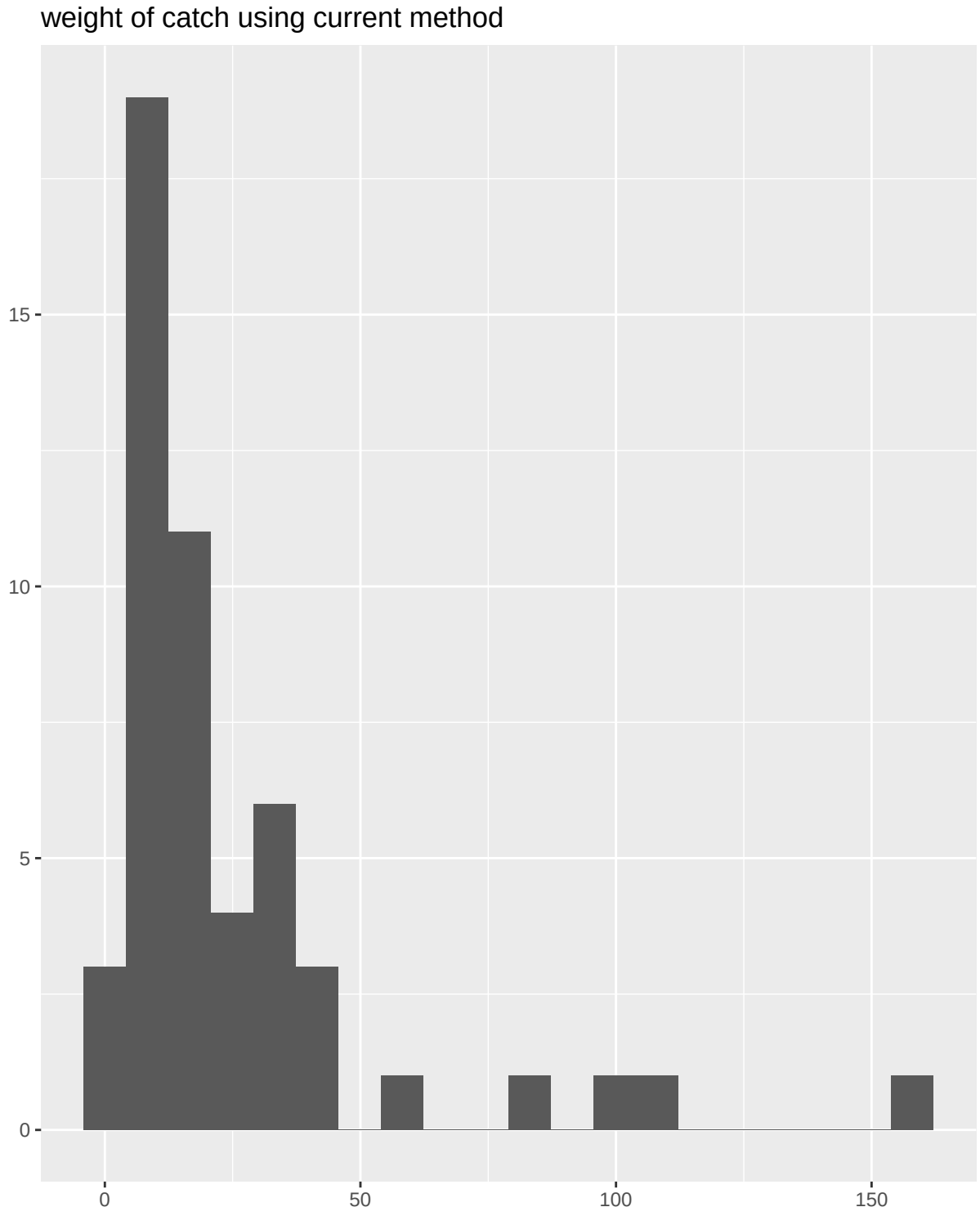

location of method
15
10
5
0
Lagoon
Mangrove
Open water outside reef (oceanic)
Other (note)
Outer reef
Reef flats

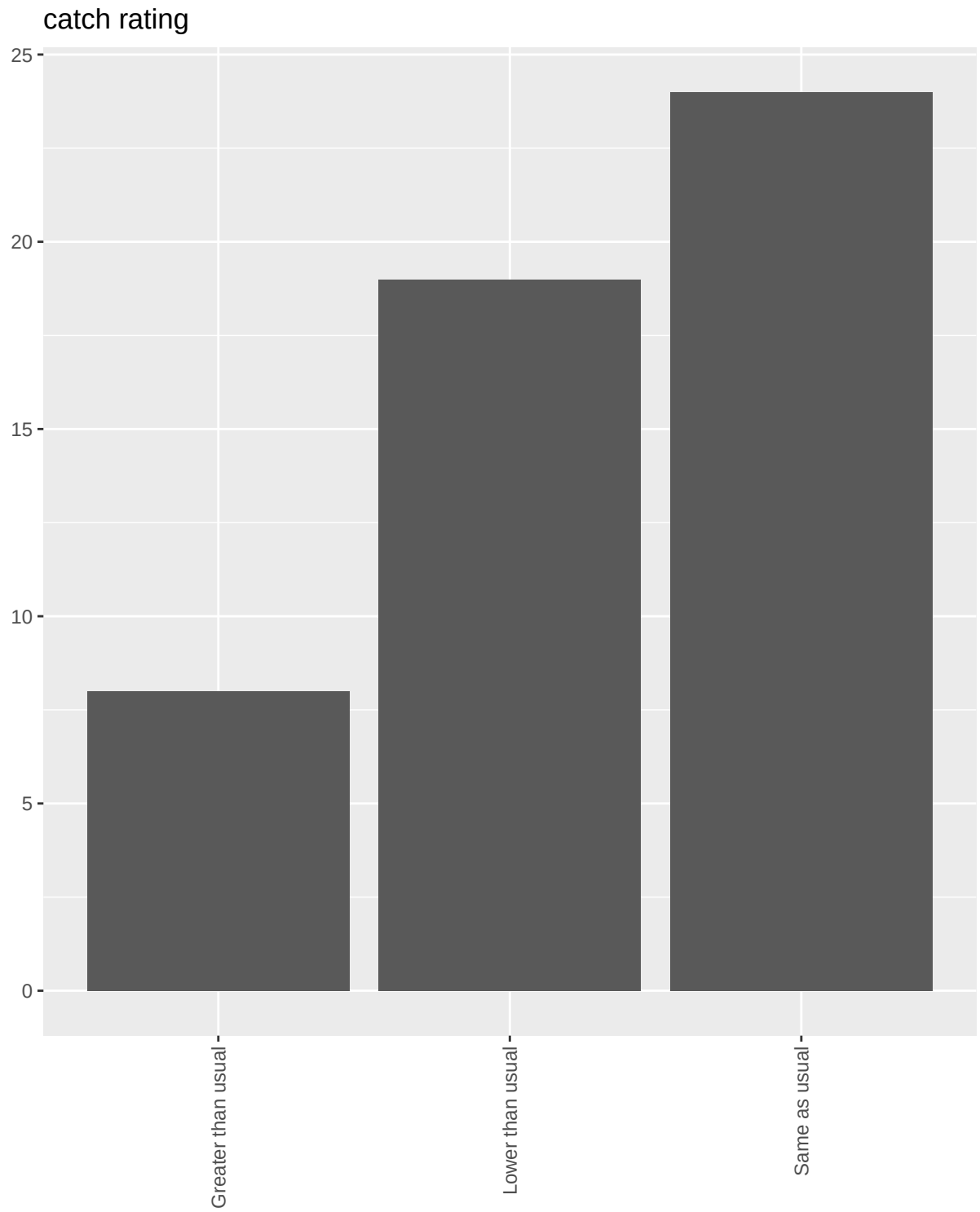

vessel used
30
20
10
0
Large skiff with outboard motor
No boat
Other method (note)
Traditional canoe with sail or paddle
Wooden canoe with outboard motor


hours spent on current method
20
15
10
5
0
0
20
40
60

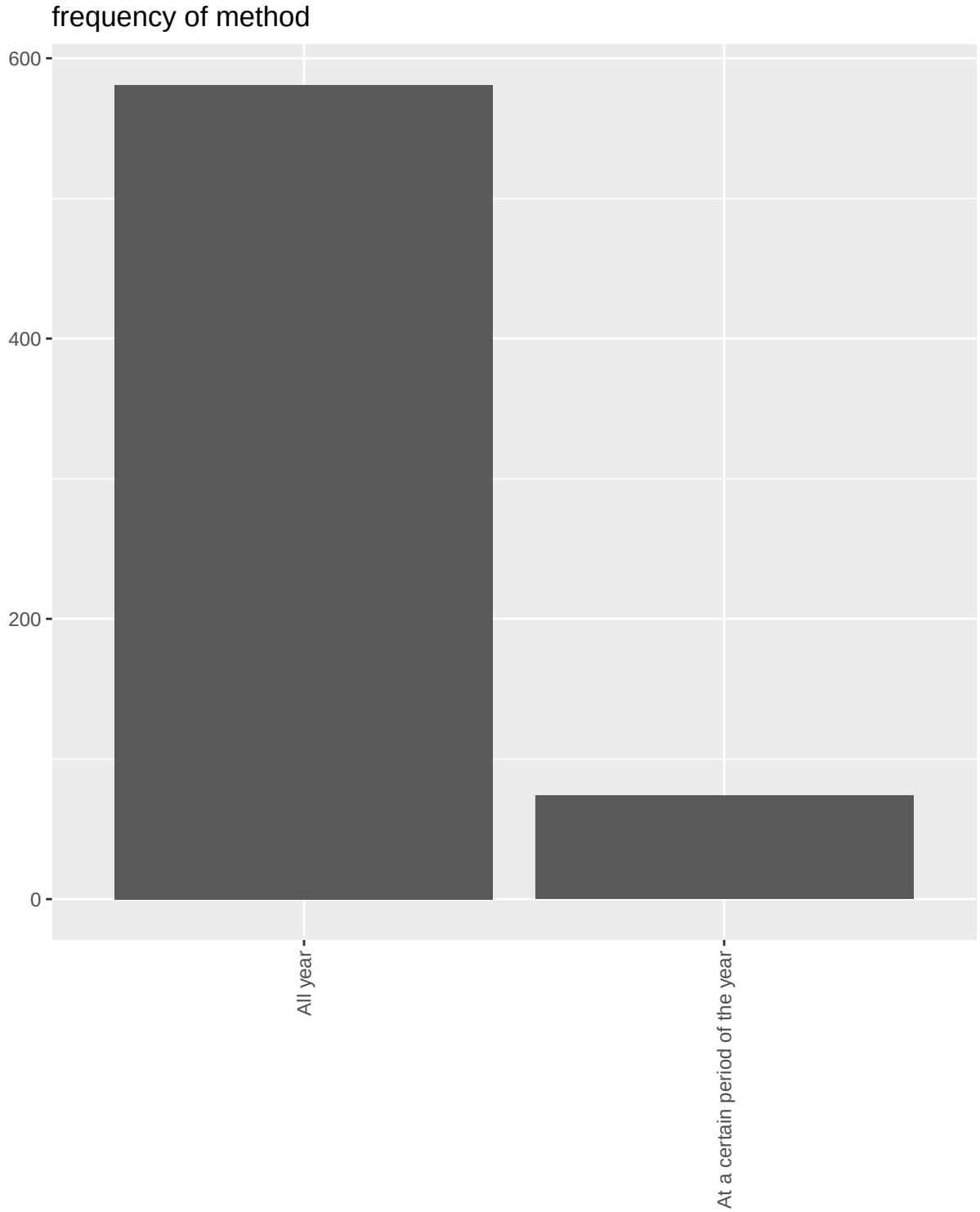

number of fishing trips
25
20
15
10
5
0
0
2
4
6

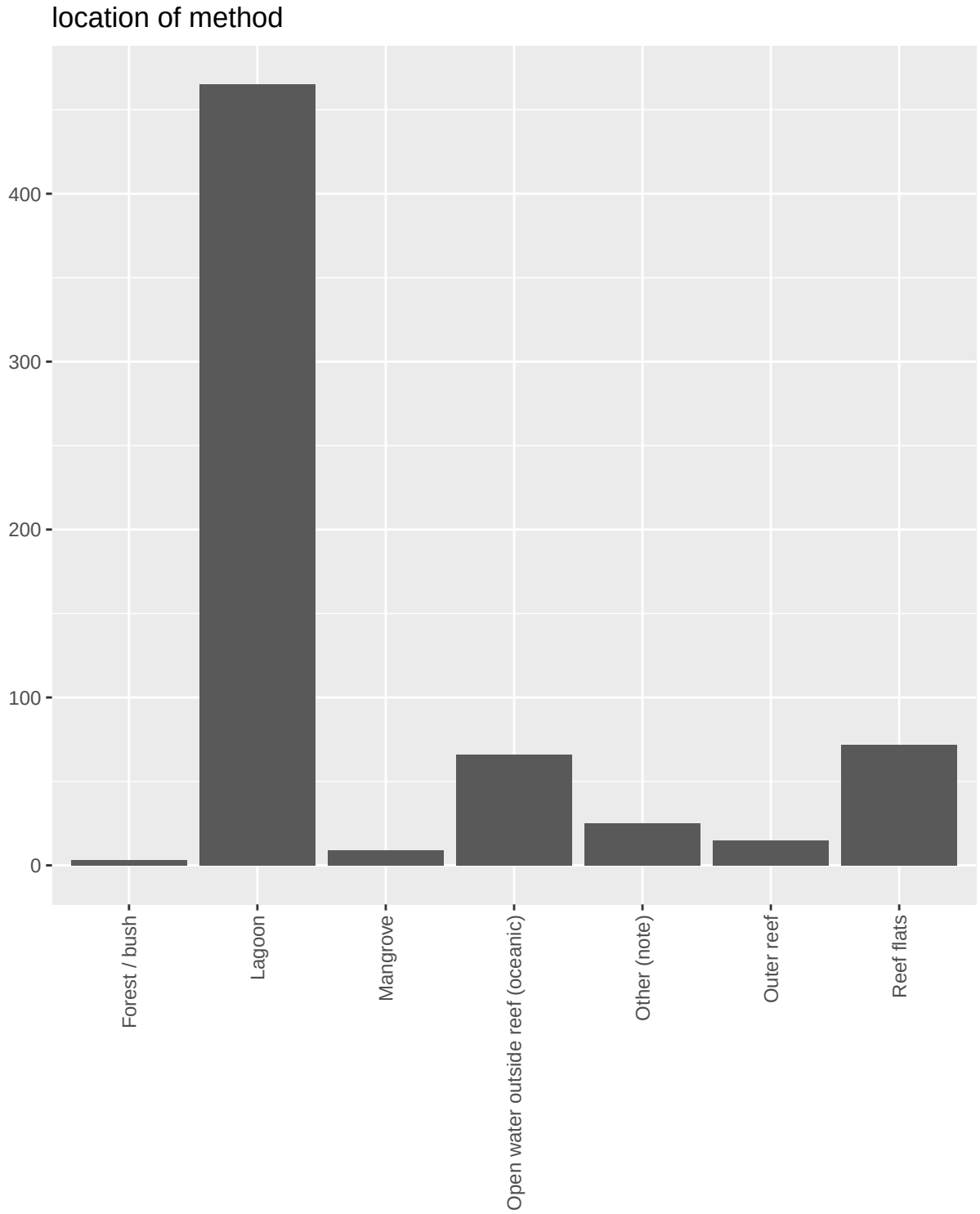

hours spent on the trip to access current method
20
15
10
5
0
0
10
20
30

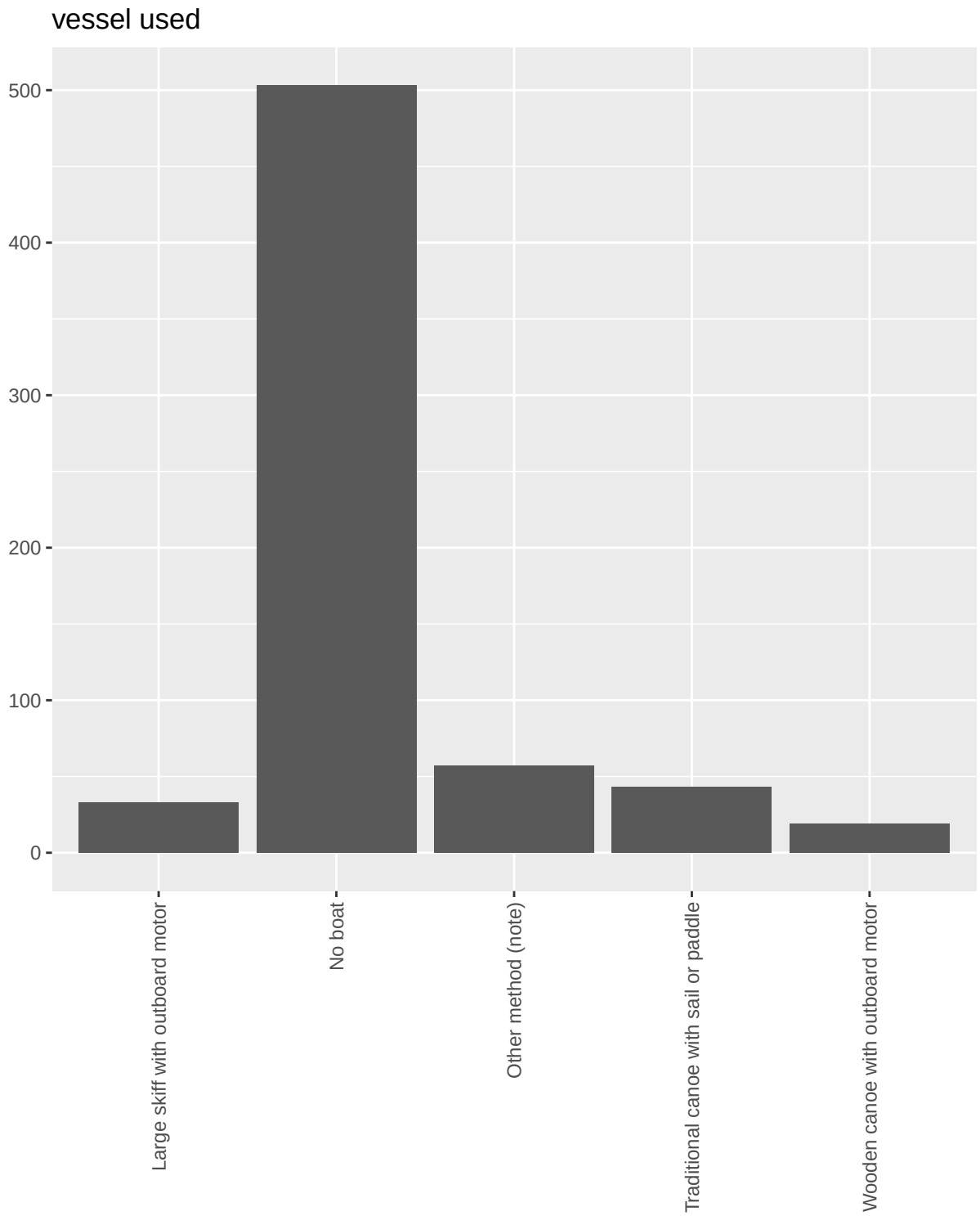

weight of catch using current method
15
10
5
0
0
50
100
150

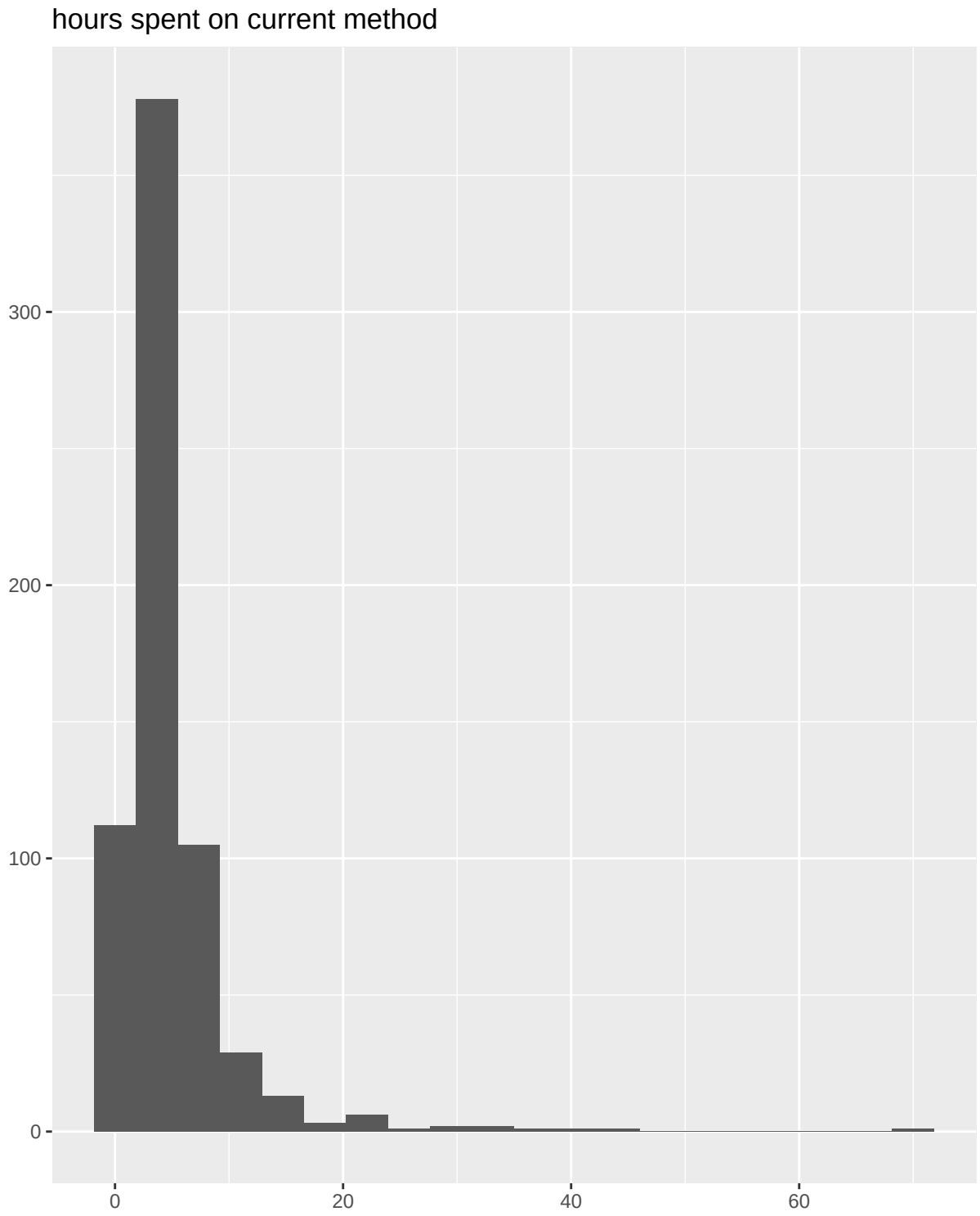

catch rating
25
20
15
10
5
0
Greater than usual
Lower than usual
Same as usual

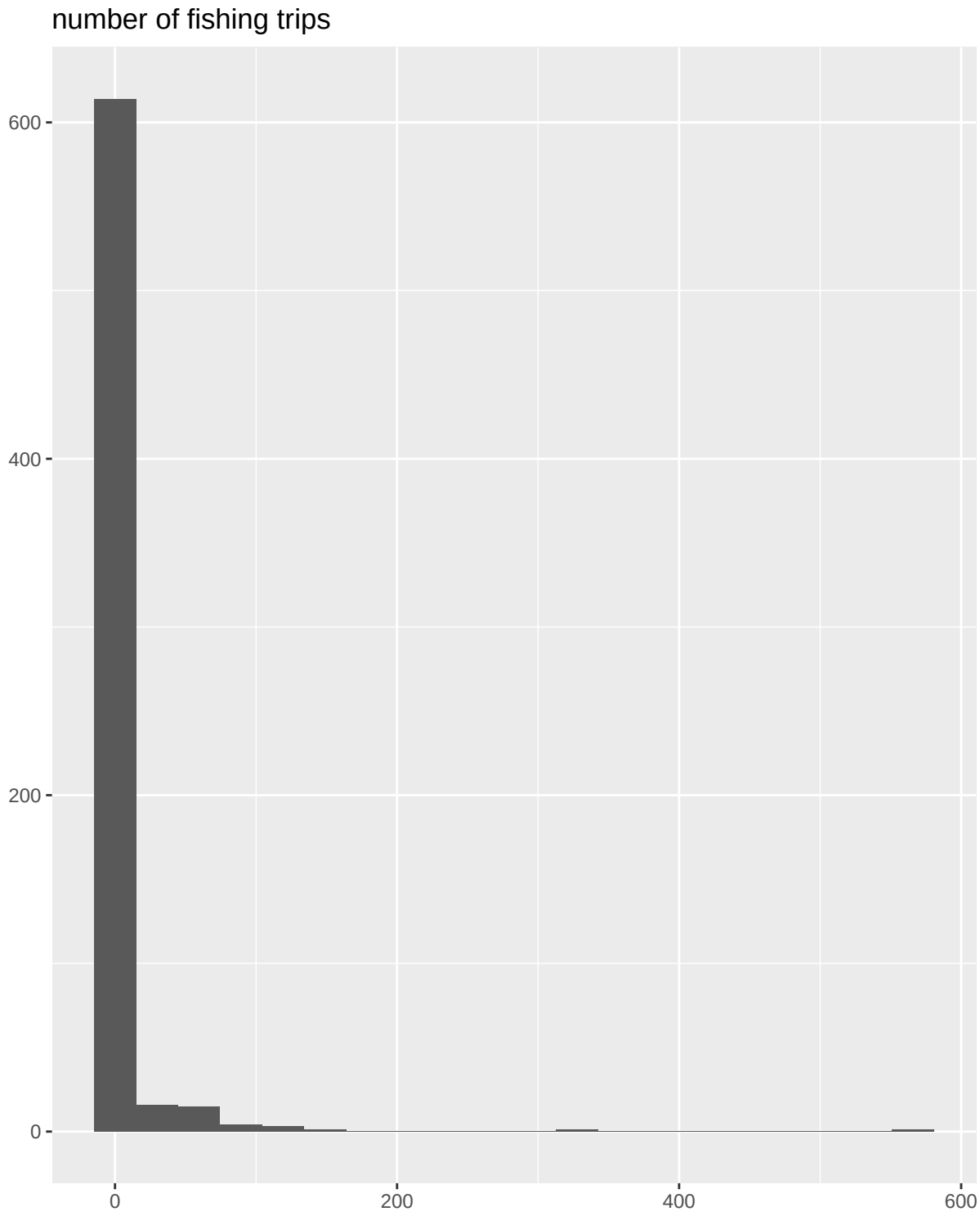
Fishing Method: Net (beach seine, gill, cast) - Te karaun

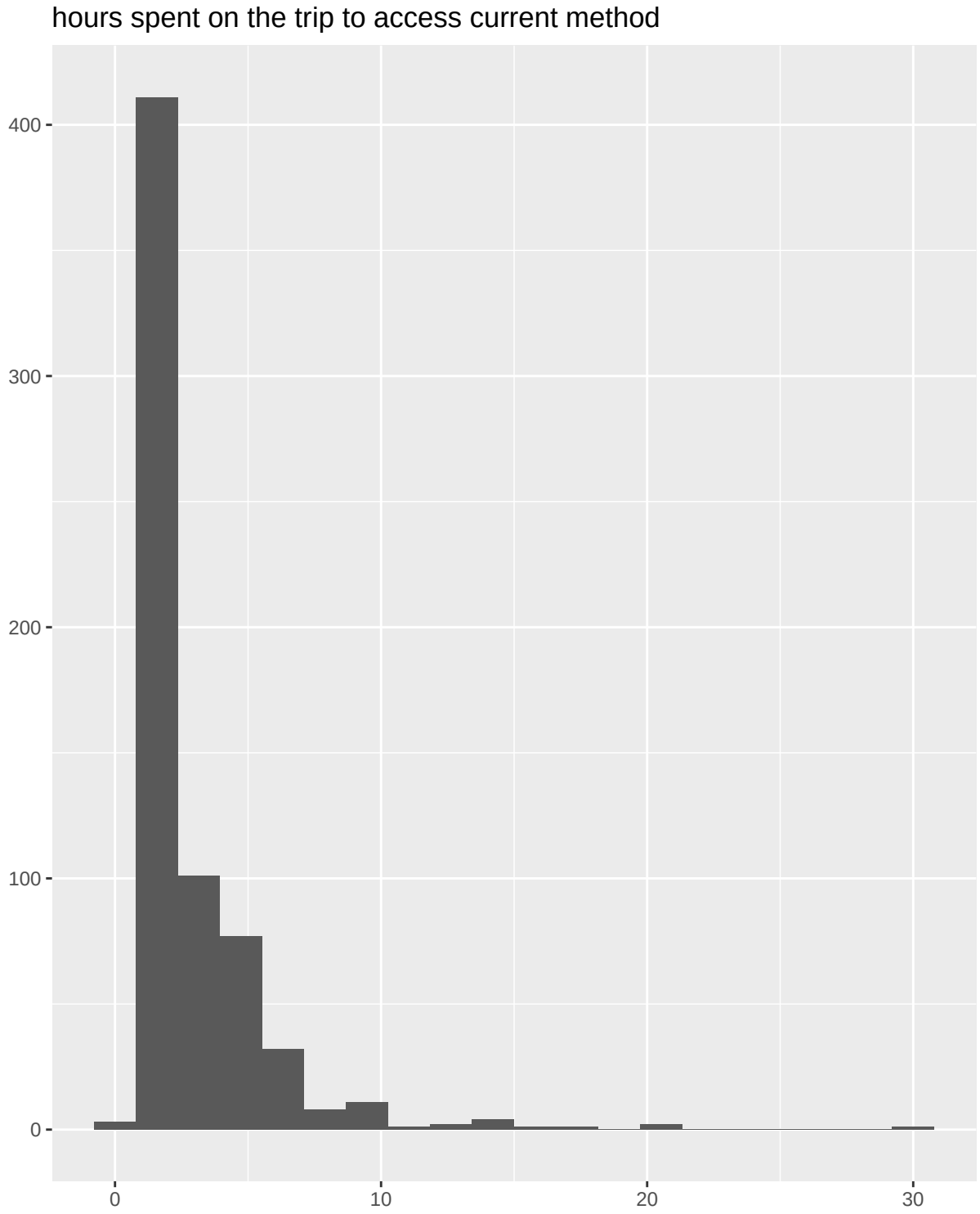


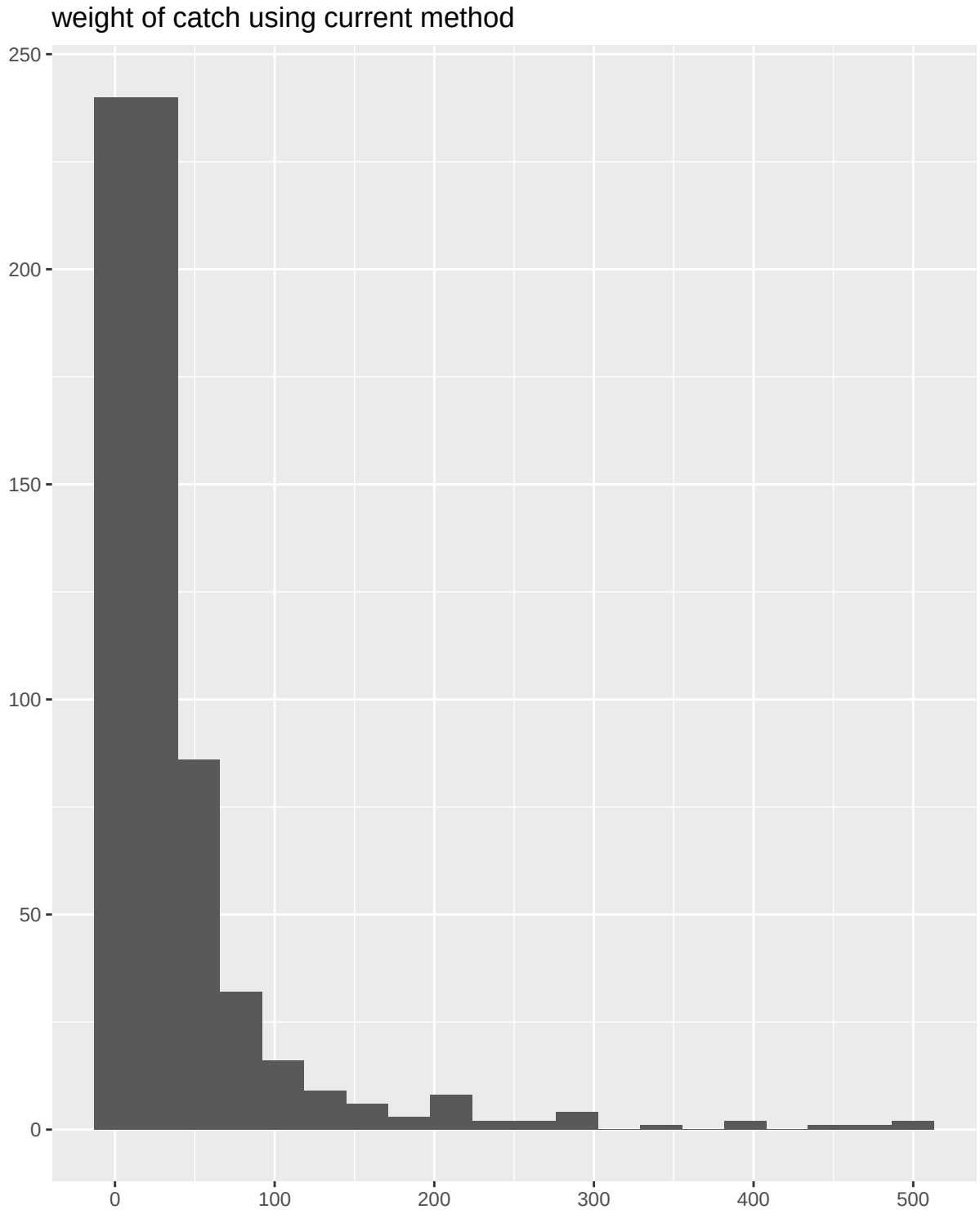

location of method
400
300
200
100
0
Forest / bush
Lagoon
Mangrove
Open water outside reef (oceanic)
Other (note)
Outer reef
Reef flats

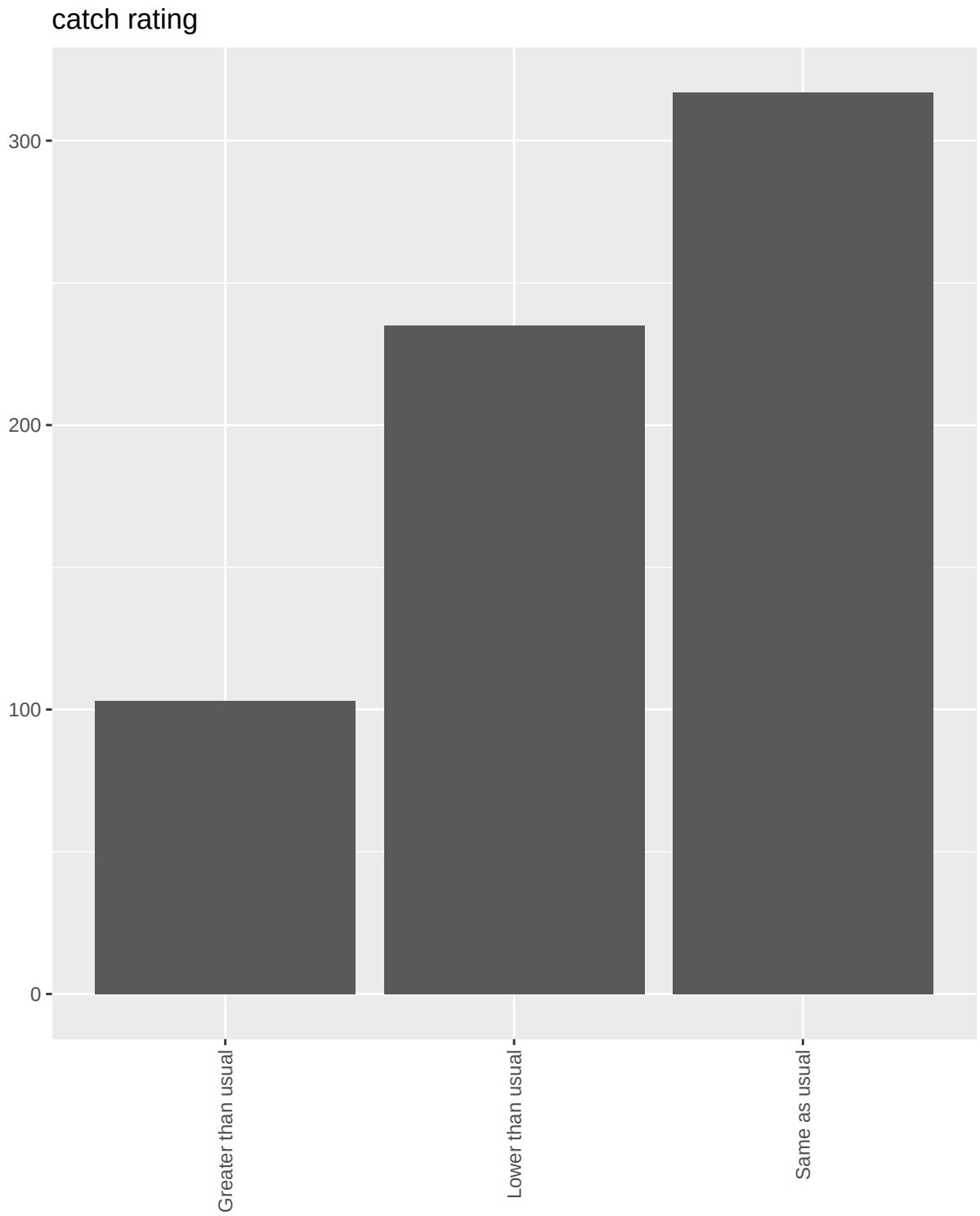

vessel used
500
400
300
200
100
0
Large skiff with outboard motor
No boat
Other method (note)
Traditional canoe with sail or paddle
Wooden canoe with outboard motor

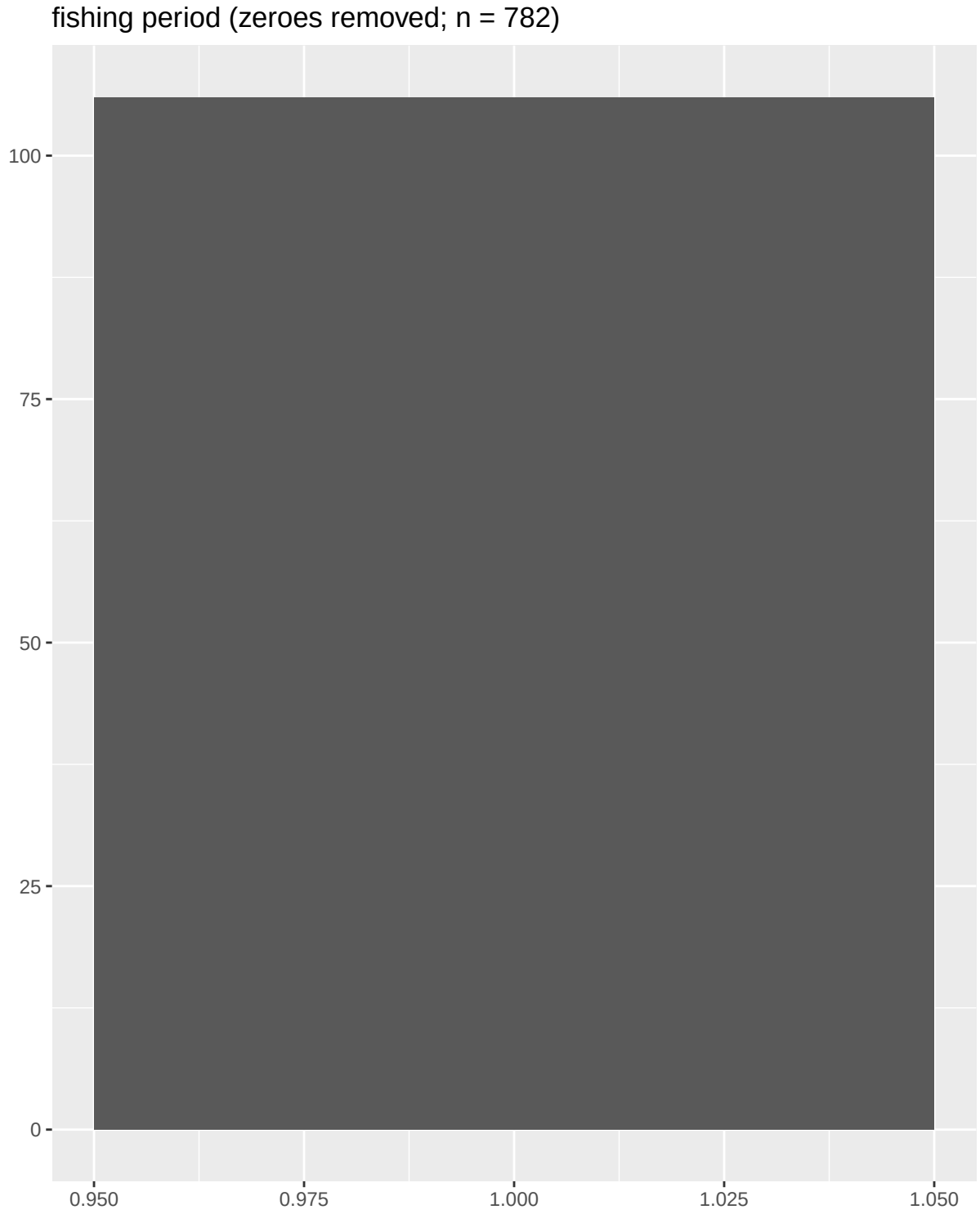

hours spent on current method
300
200
100
0
0
20
40
60


number of fishing trips
600
400
200
0
0
200
400
600

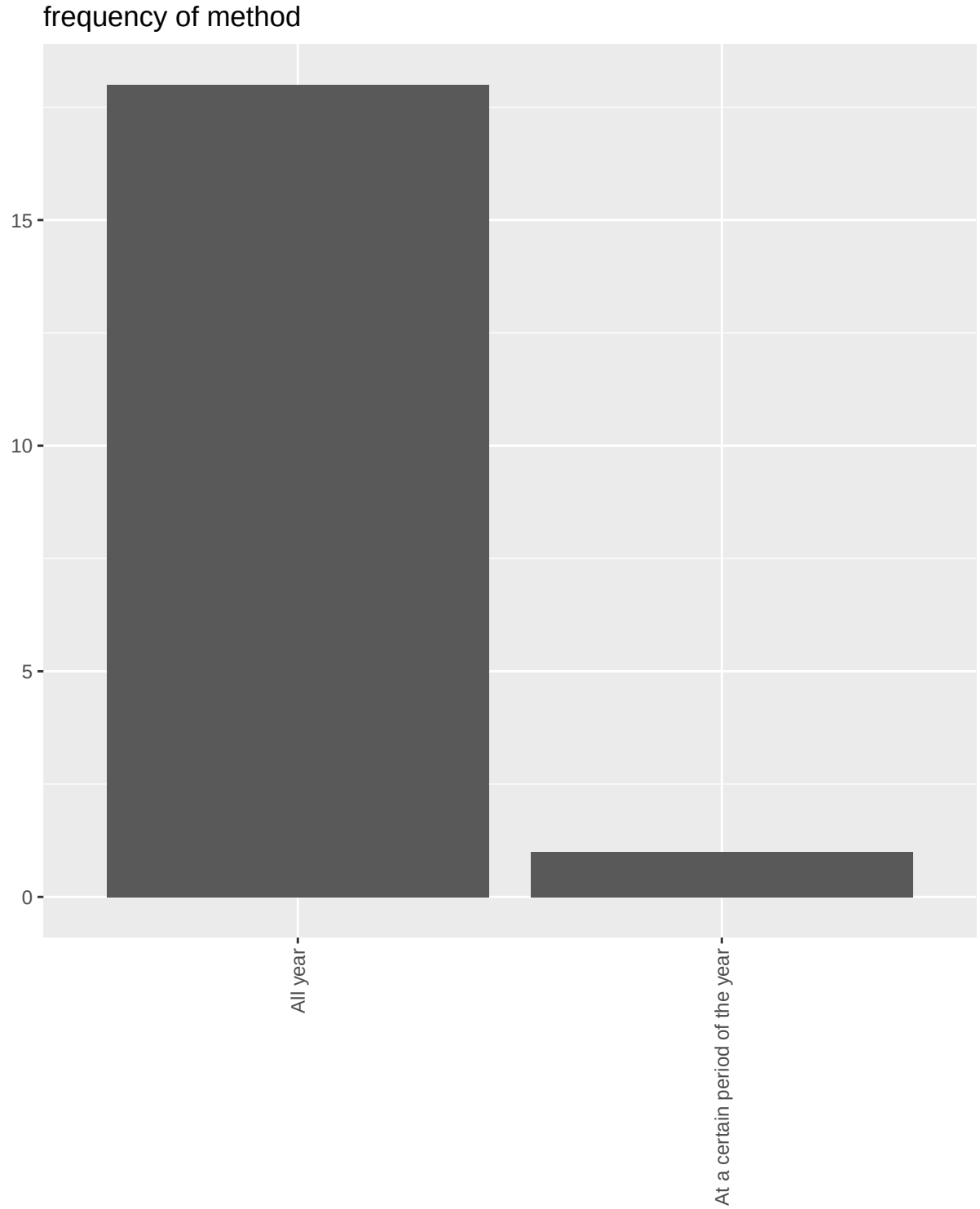

hours spent on the trip to access current method
400
300
200
100
0
0
10
20
30

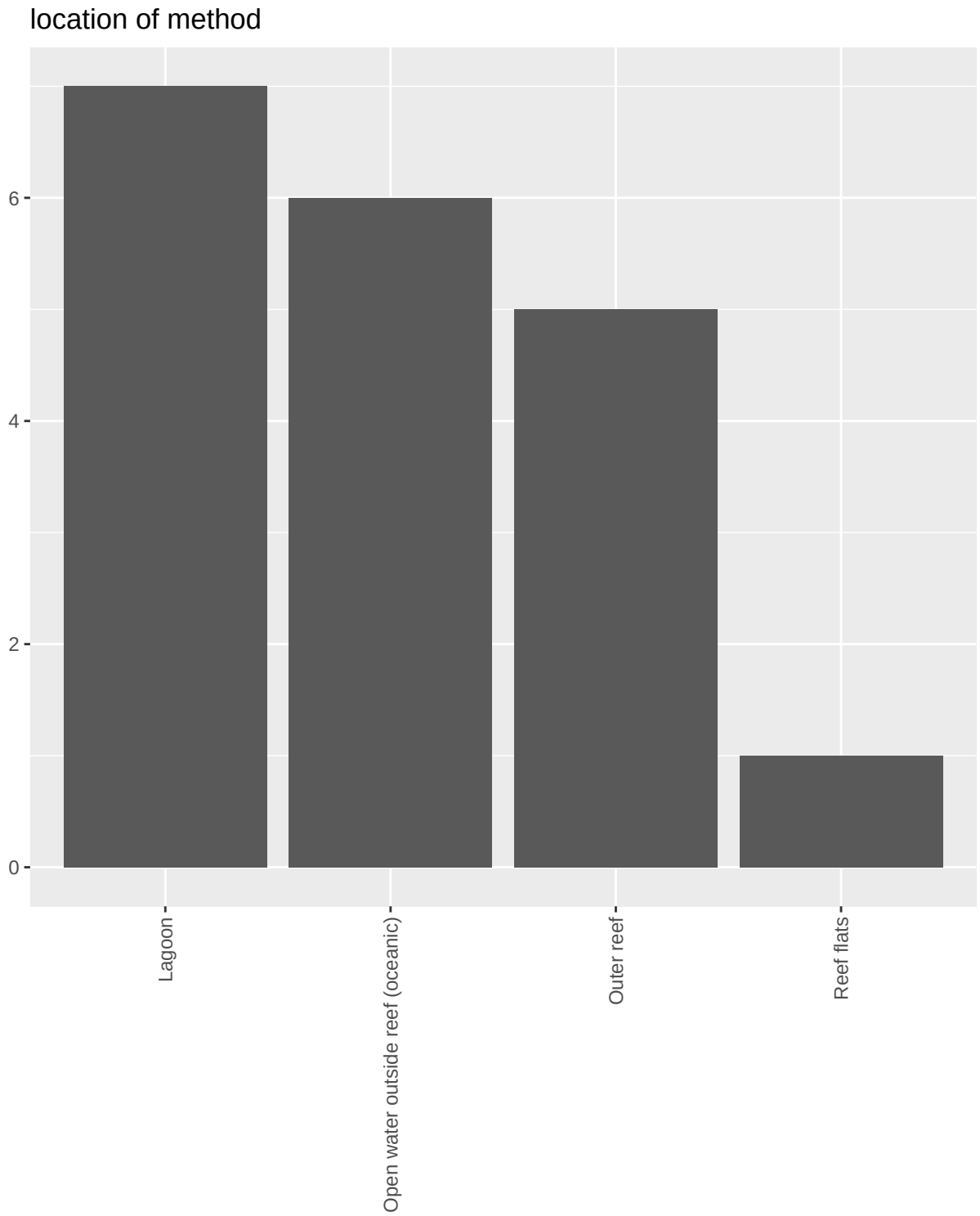

weight of catch using current method
250
200
150
100
50
0
0
100
200
300
400
500

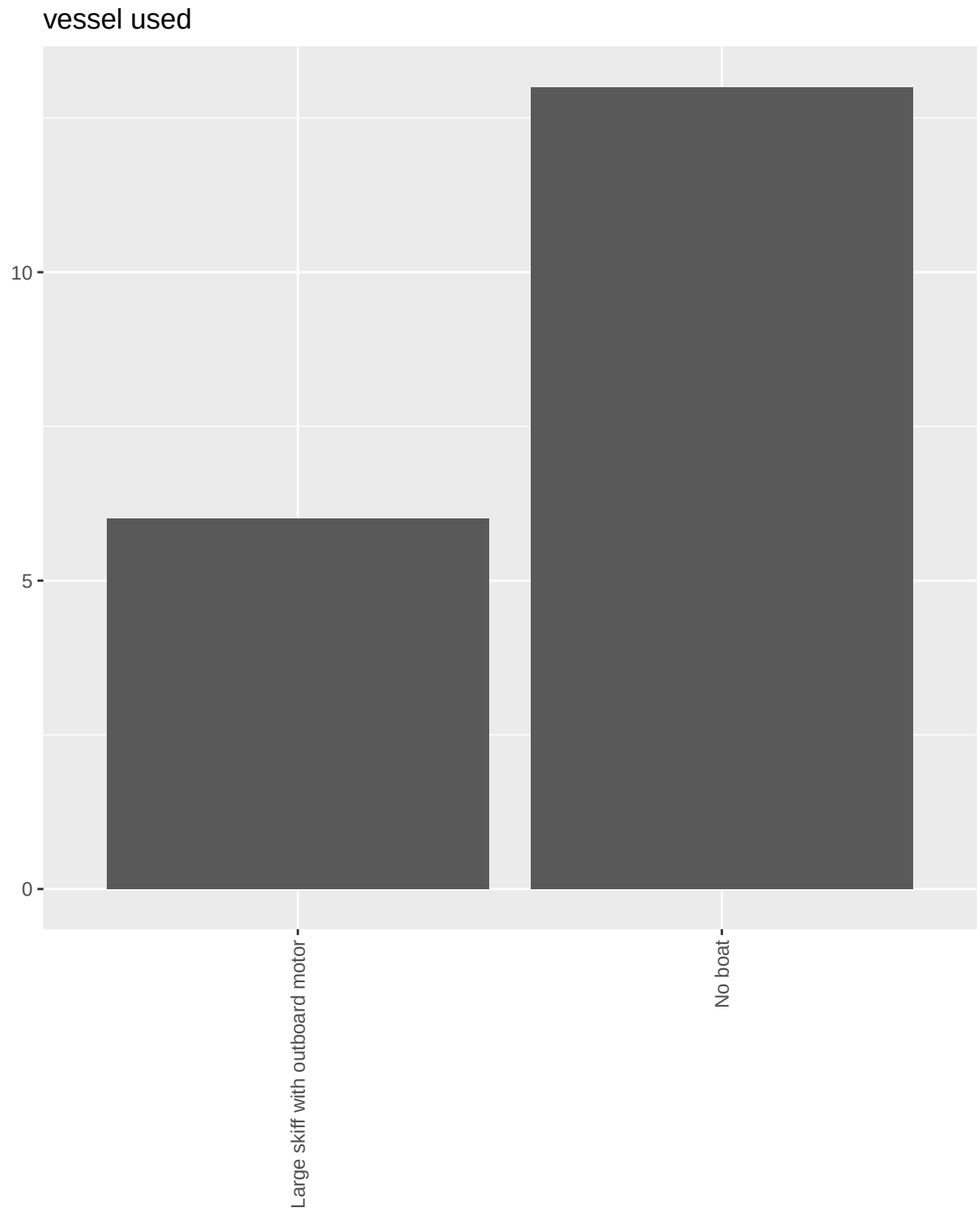

catch rating
300
200
100
0
Greater than usual
Lower than usual
Same as usual

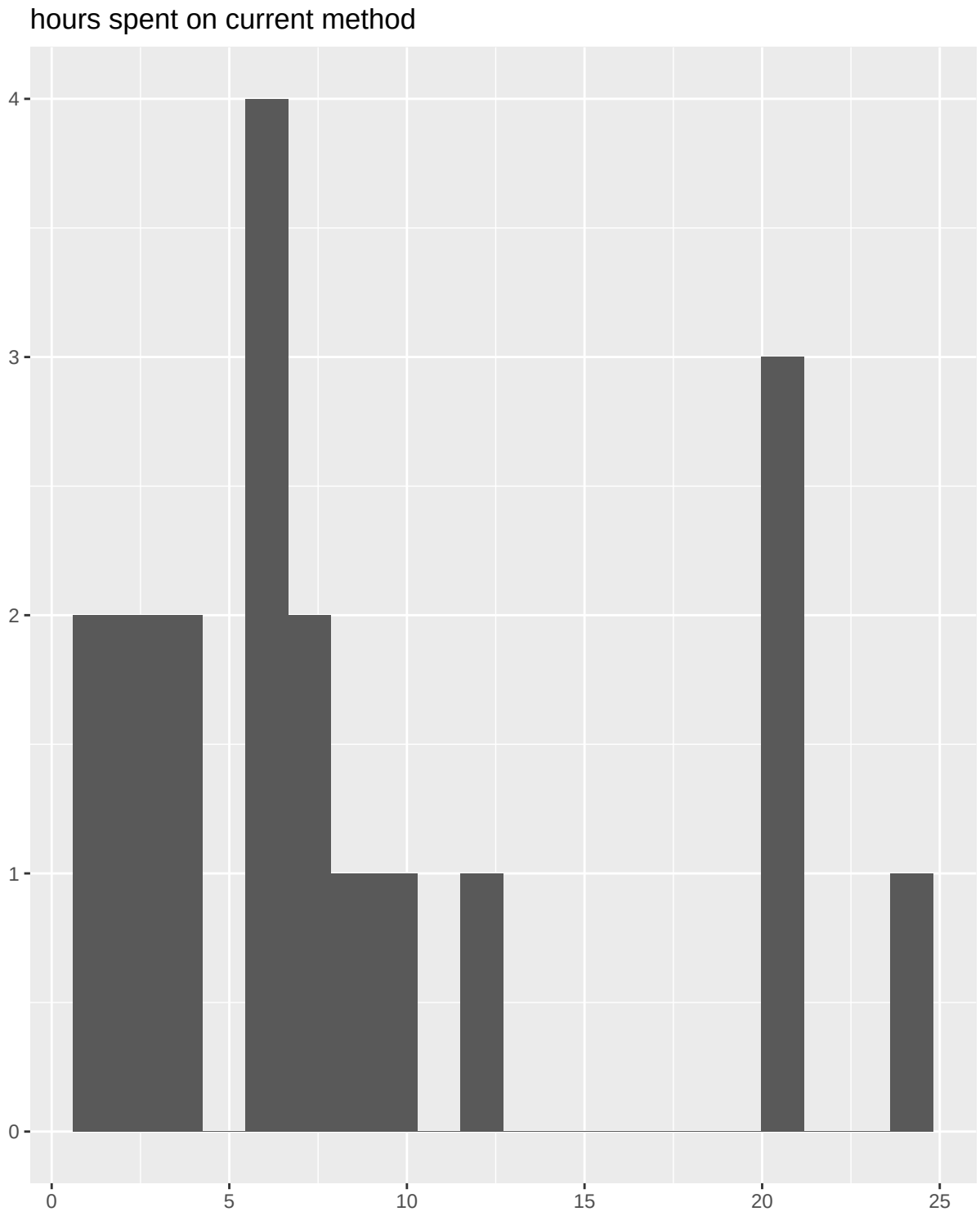

fishing period (zeroes removed; n = 782)
100
75
50
25
0
0.950
0.975
1.000
1.025
1.050

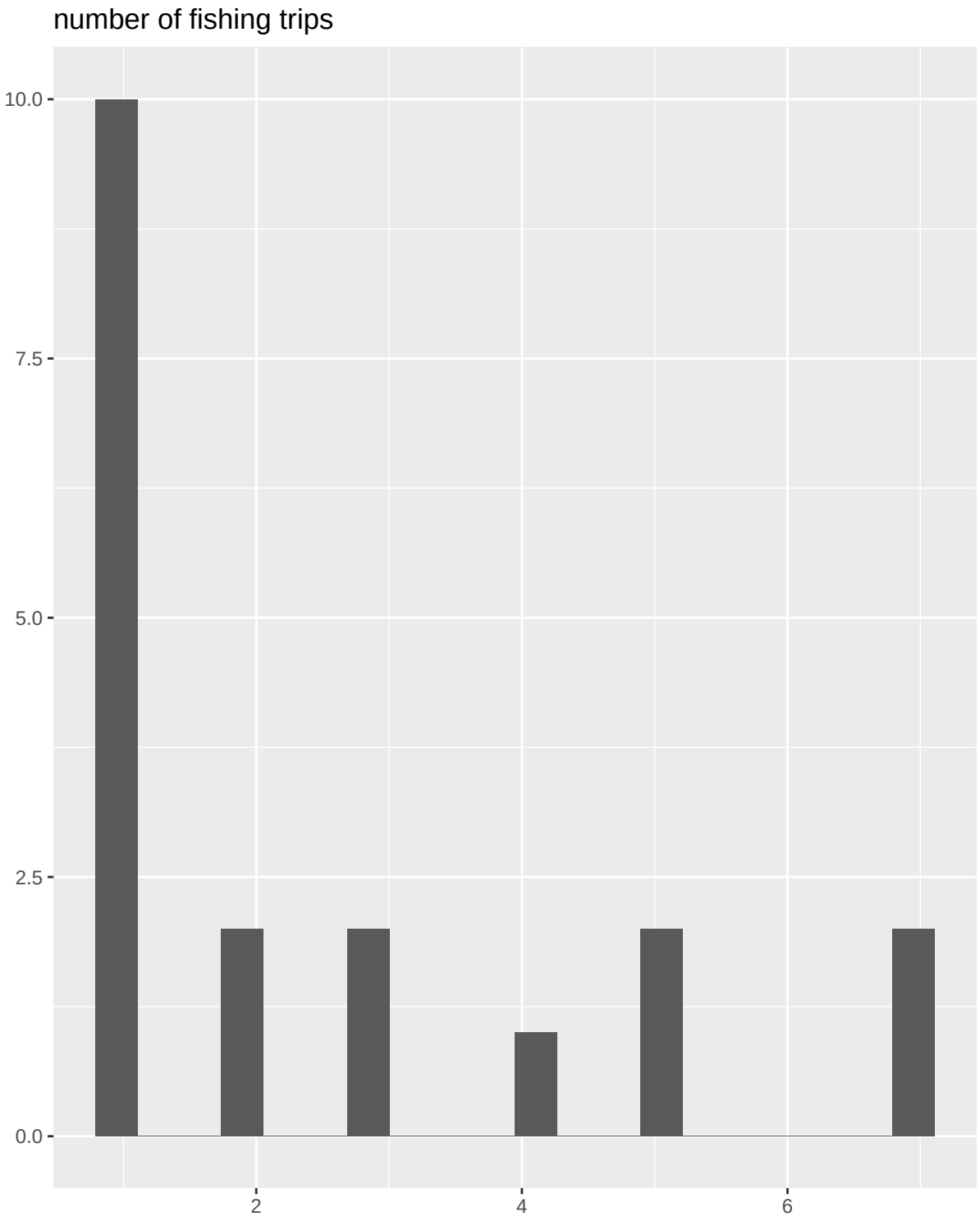
Fishing Method: Freediving / diving without SCUBA (Te tebo)

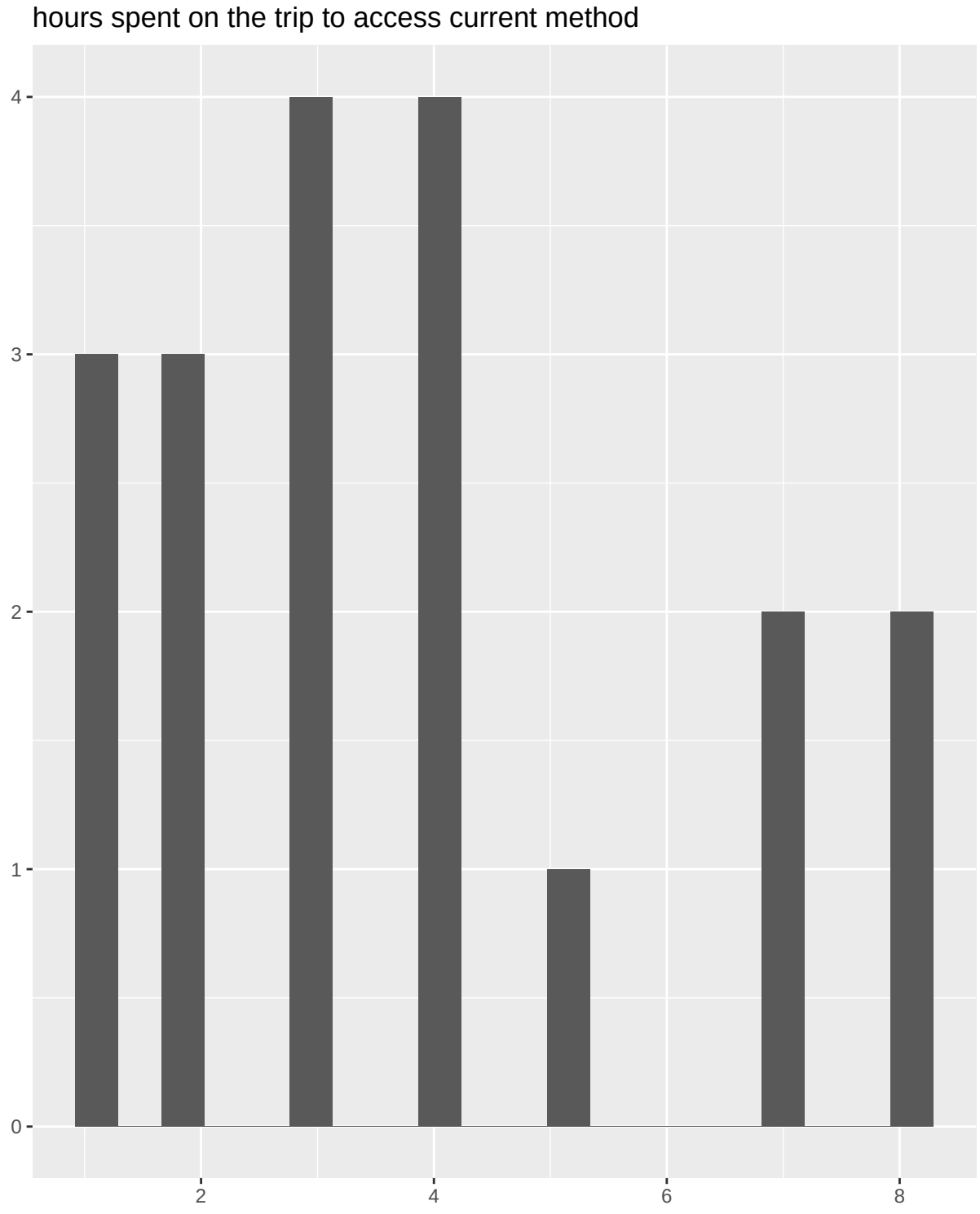


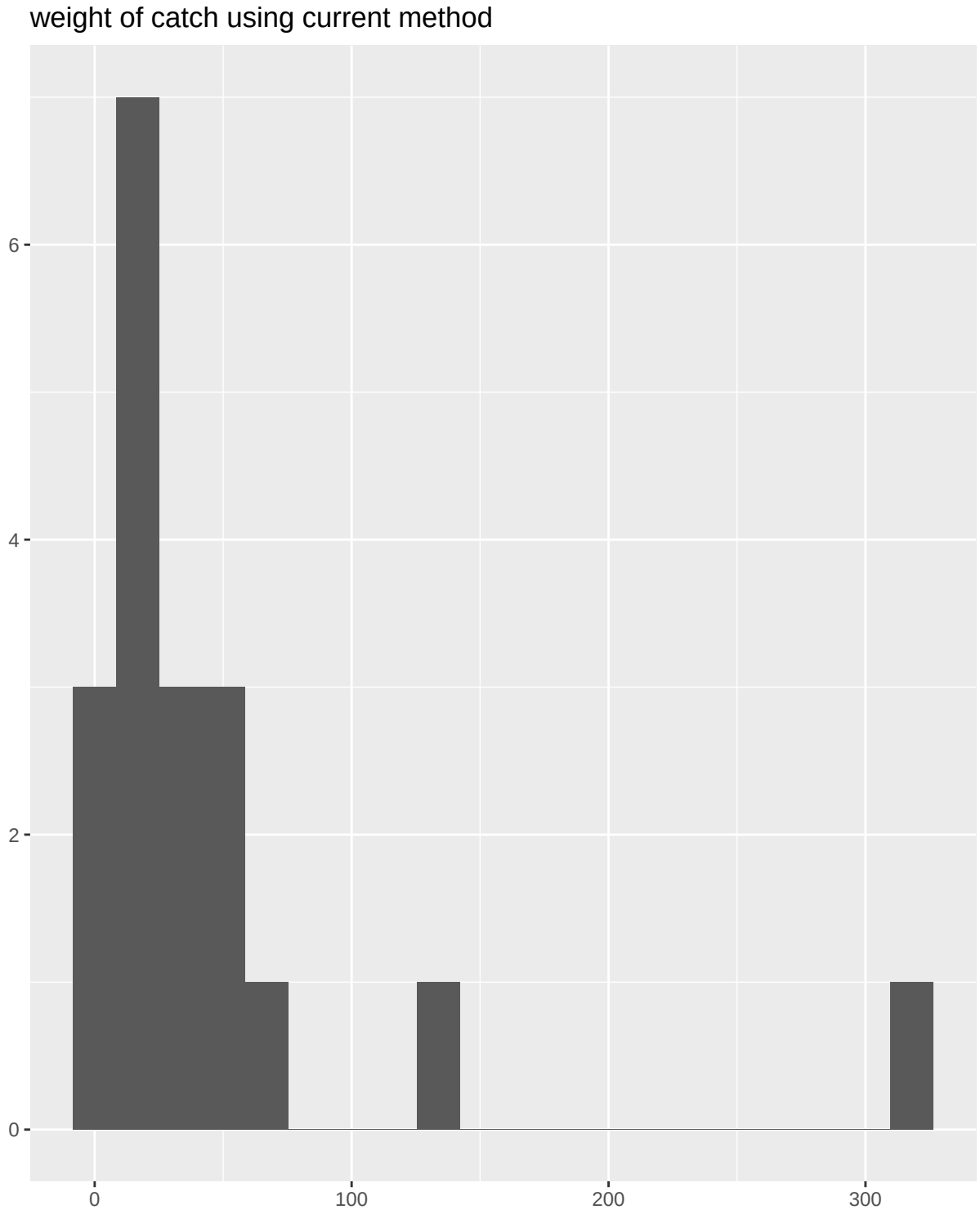

location of method
6
4
2
0
Lagoon
Open water outside reef (oceanic)
Outer reef
Reef flats

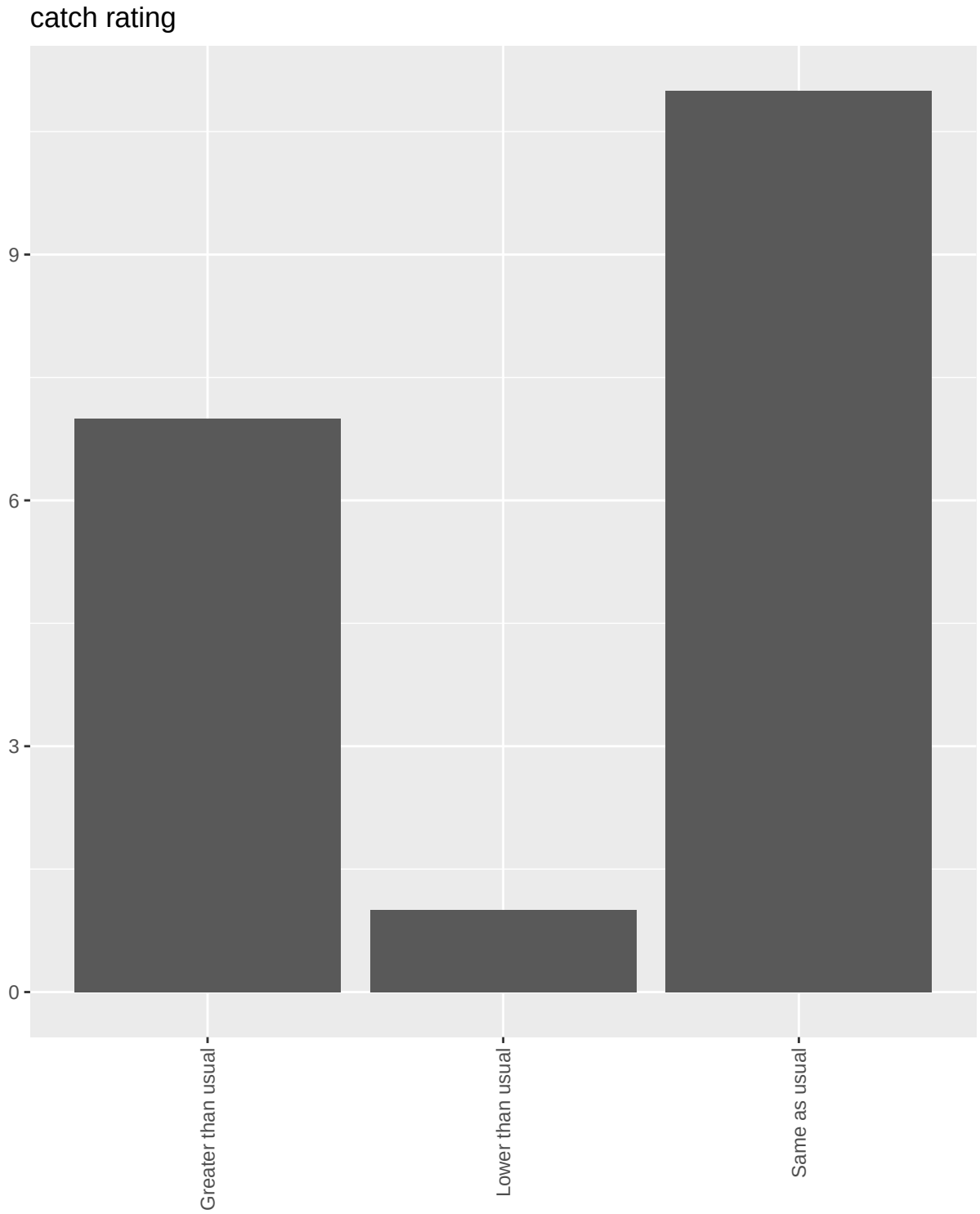

vessel used
10
5
0
Large skiff with outboard motor
No boat

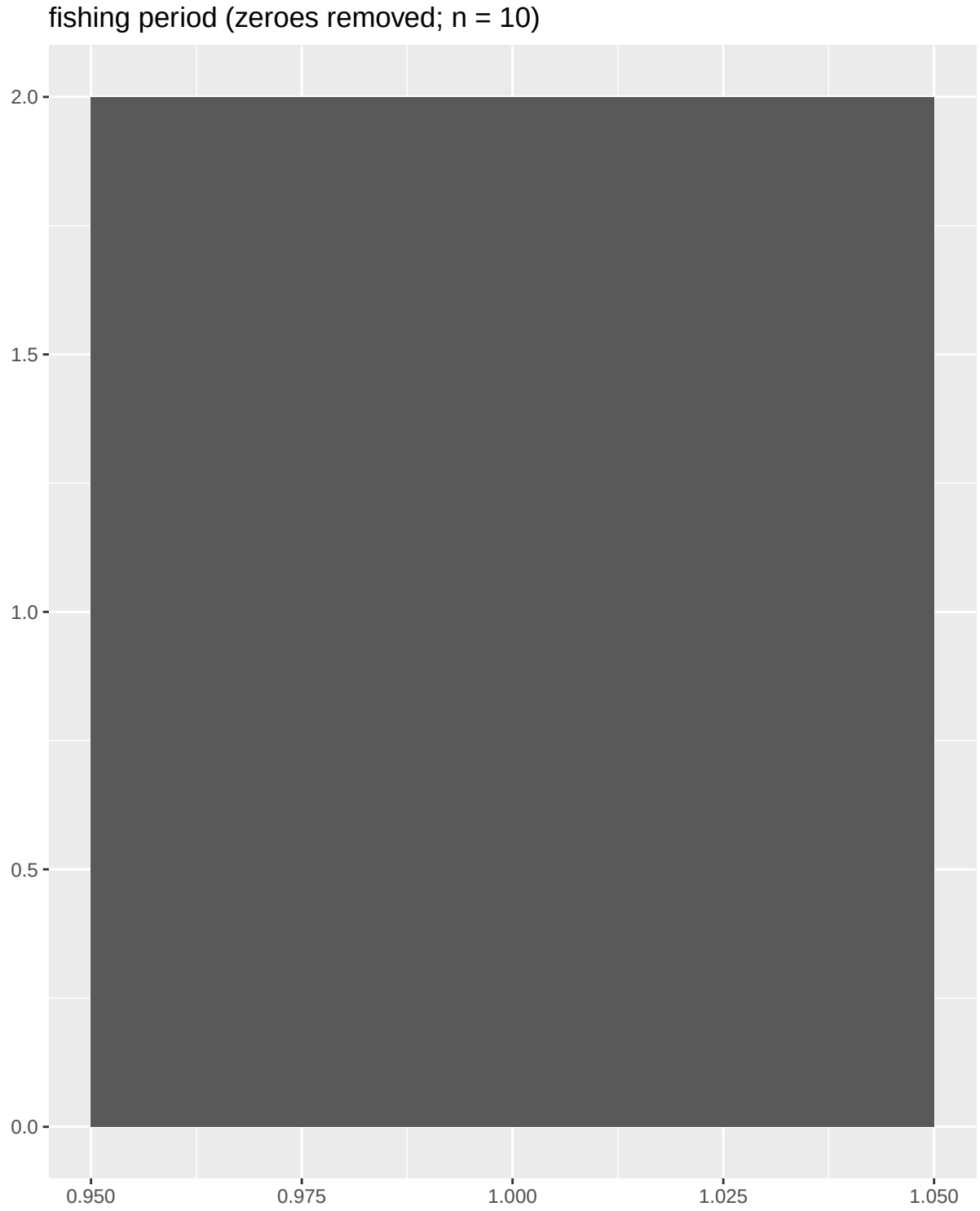

hours spent on current method
4
3
2
1
0
0
5
10
15
20
25


number of fishing trips
10.0
7.5
5.0
2.5
0.0
2
4
6

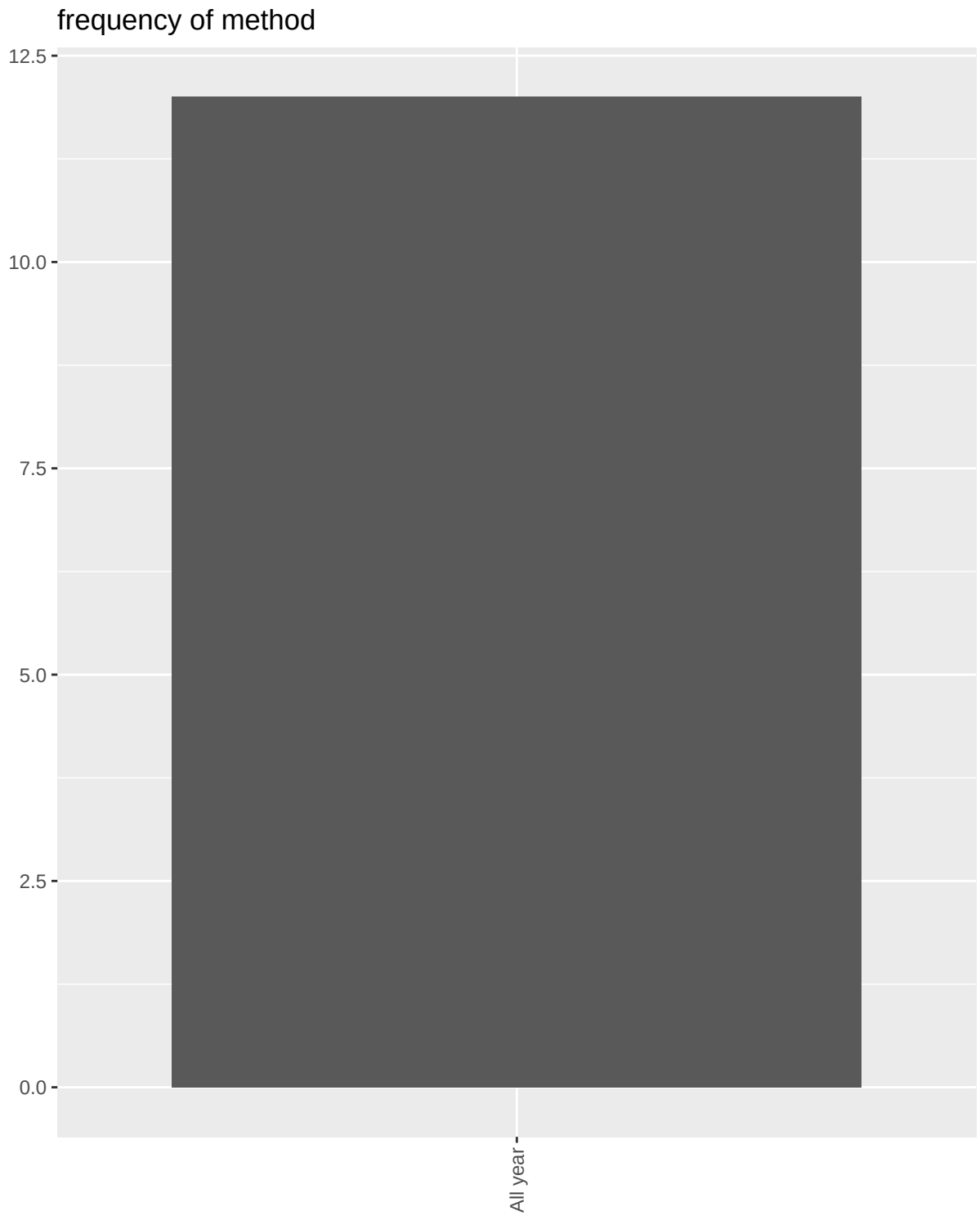

hours spent on the trip to access current method
4
3
2
1
0
2
4
6
8

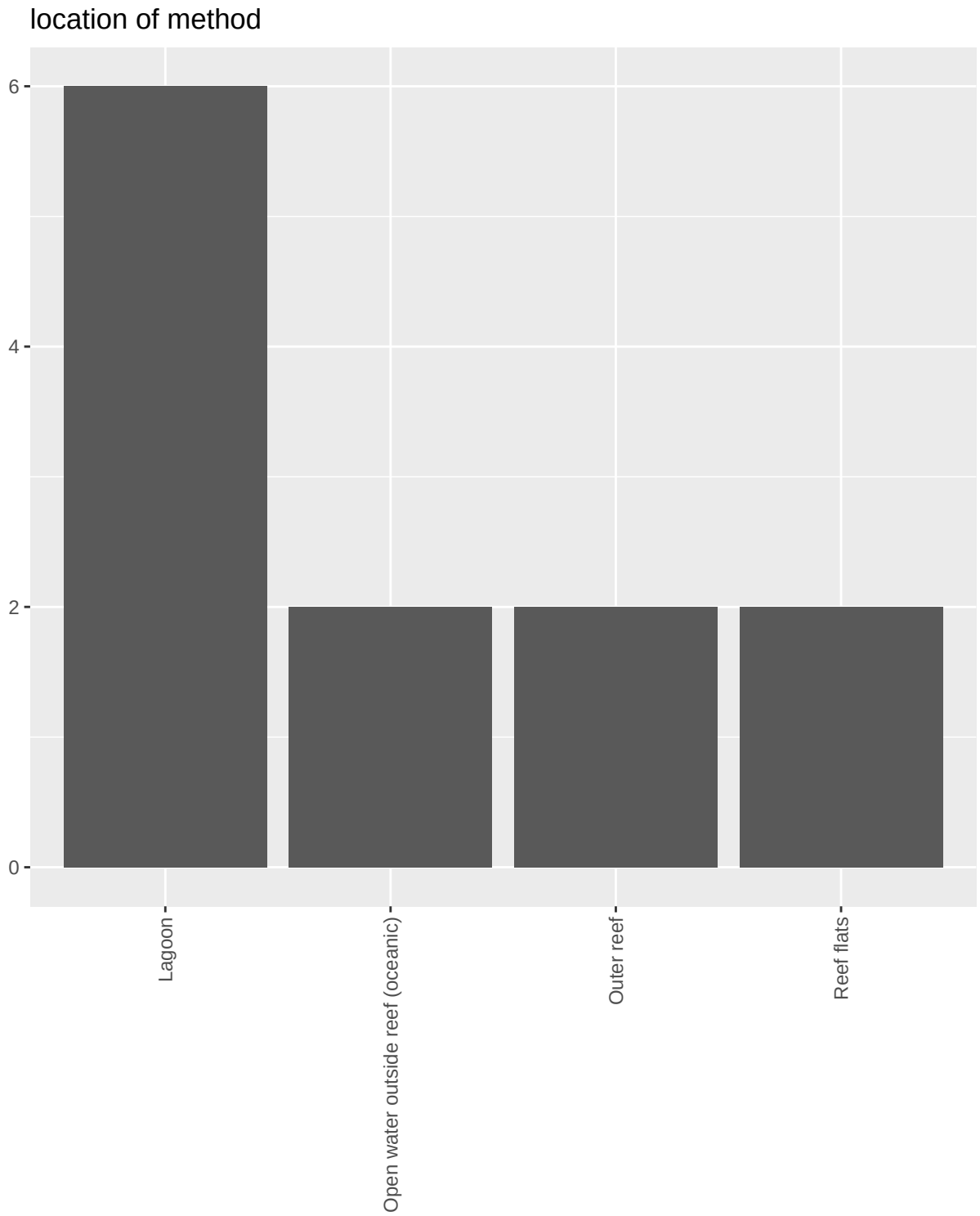

weight of catch using current method
6
4
2
0
0
100
200
300

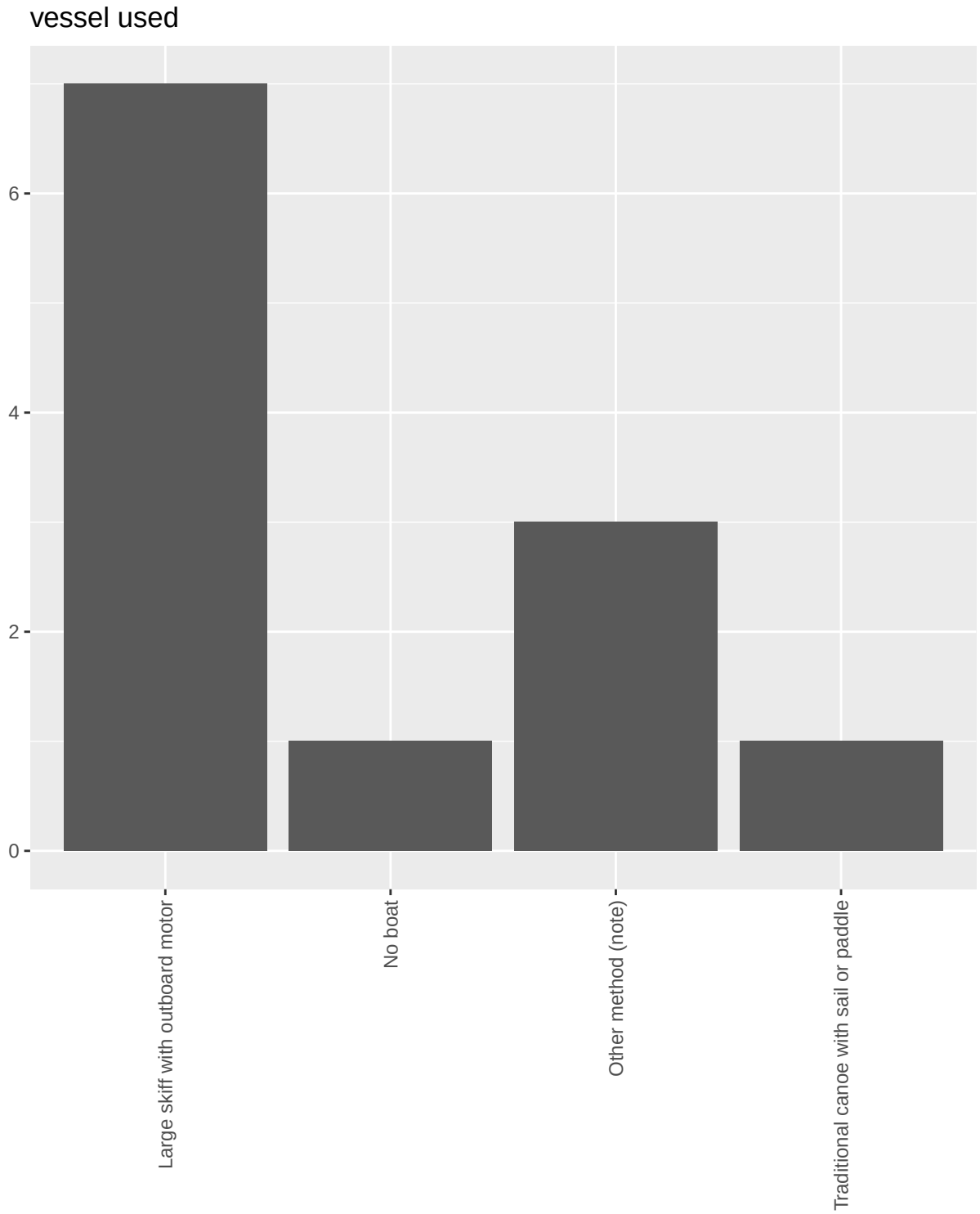

catch rating
9
6
3
0
Greater than usual
Lower than usual
Same as usual

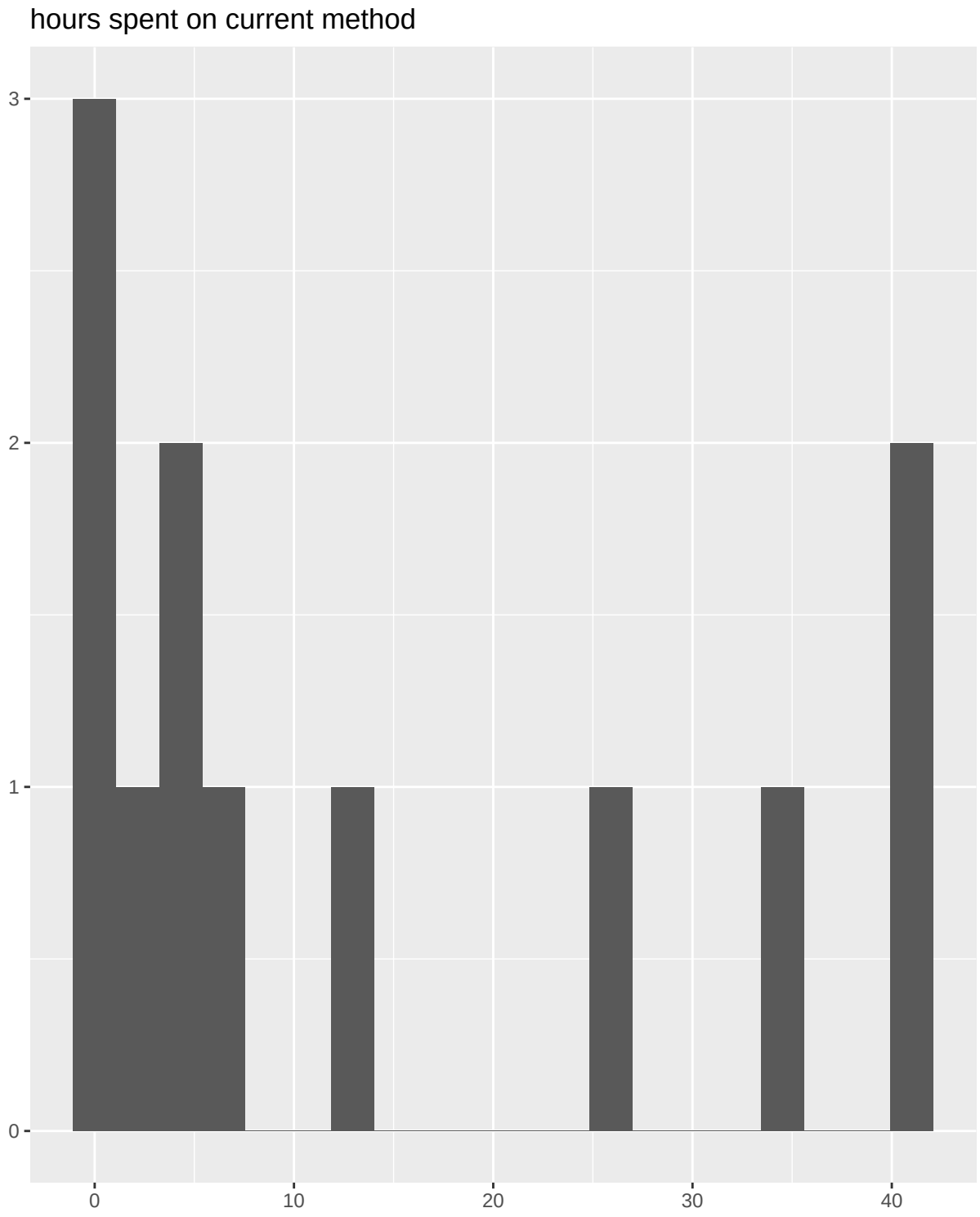

fishing period (zeroes removed; n = 10)
2.0
1.5
1.0
0.5
0.0
0.950
0.975
1.000
1.025
1.050

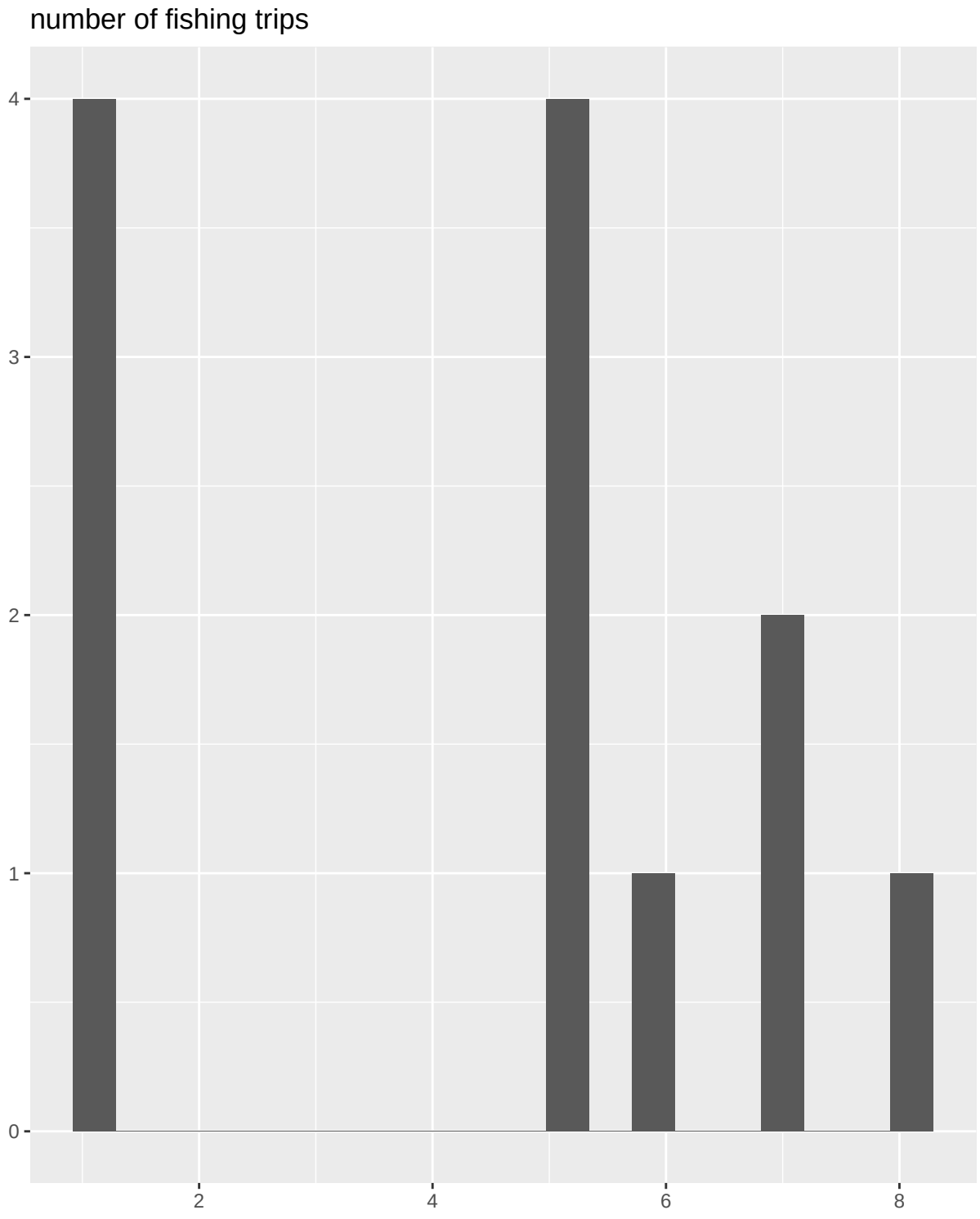
Fishing Method: Traps (Te uu)

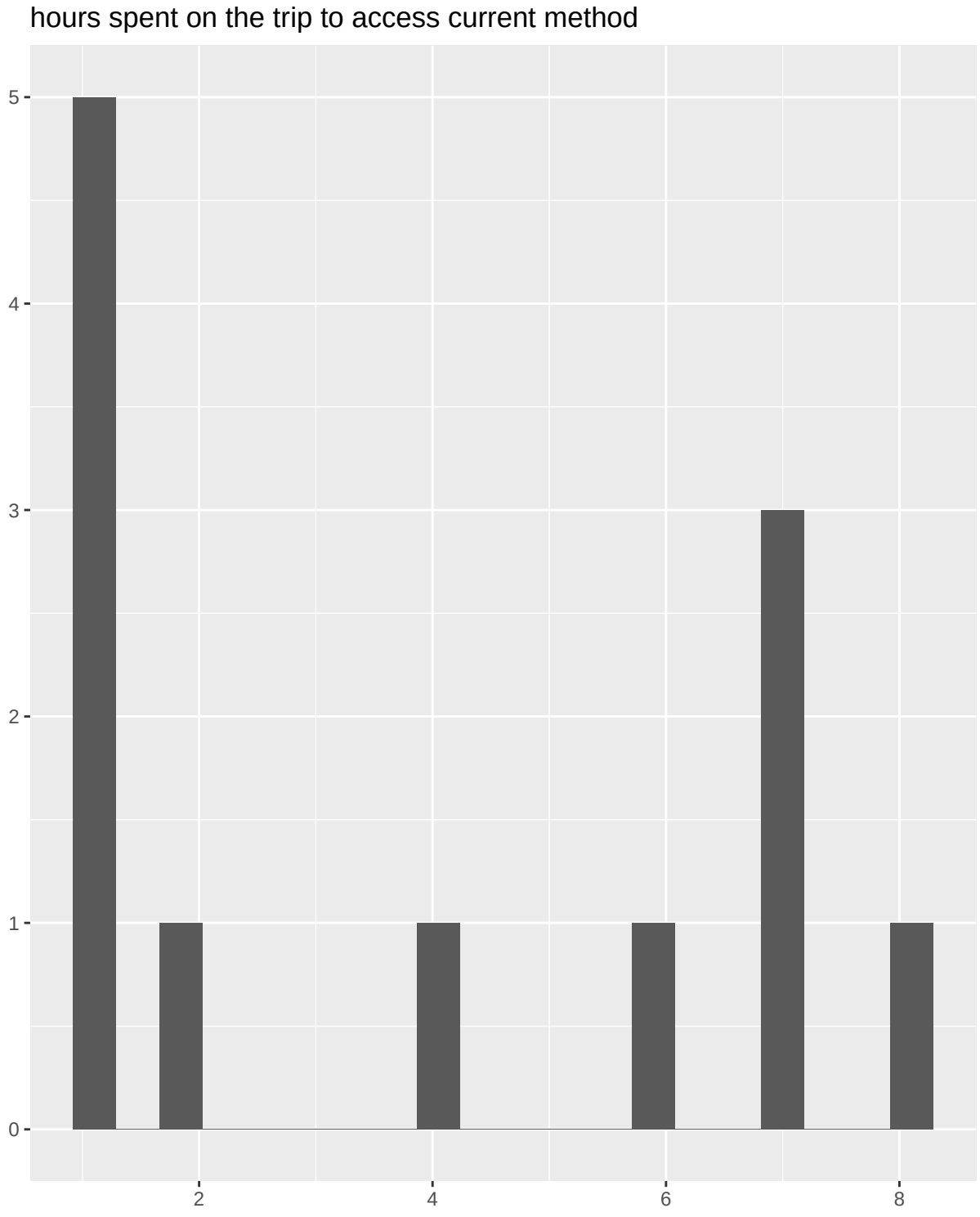


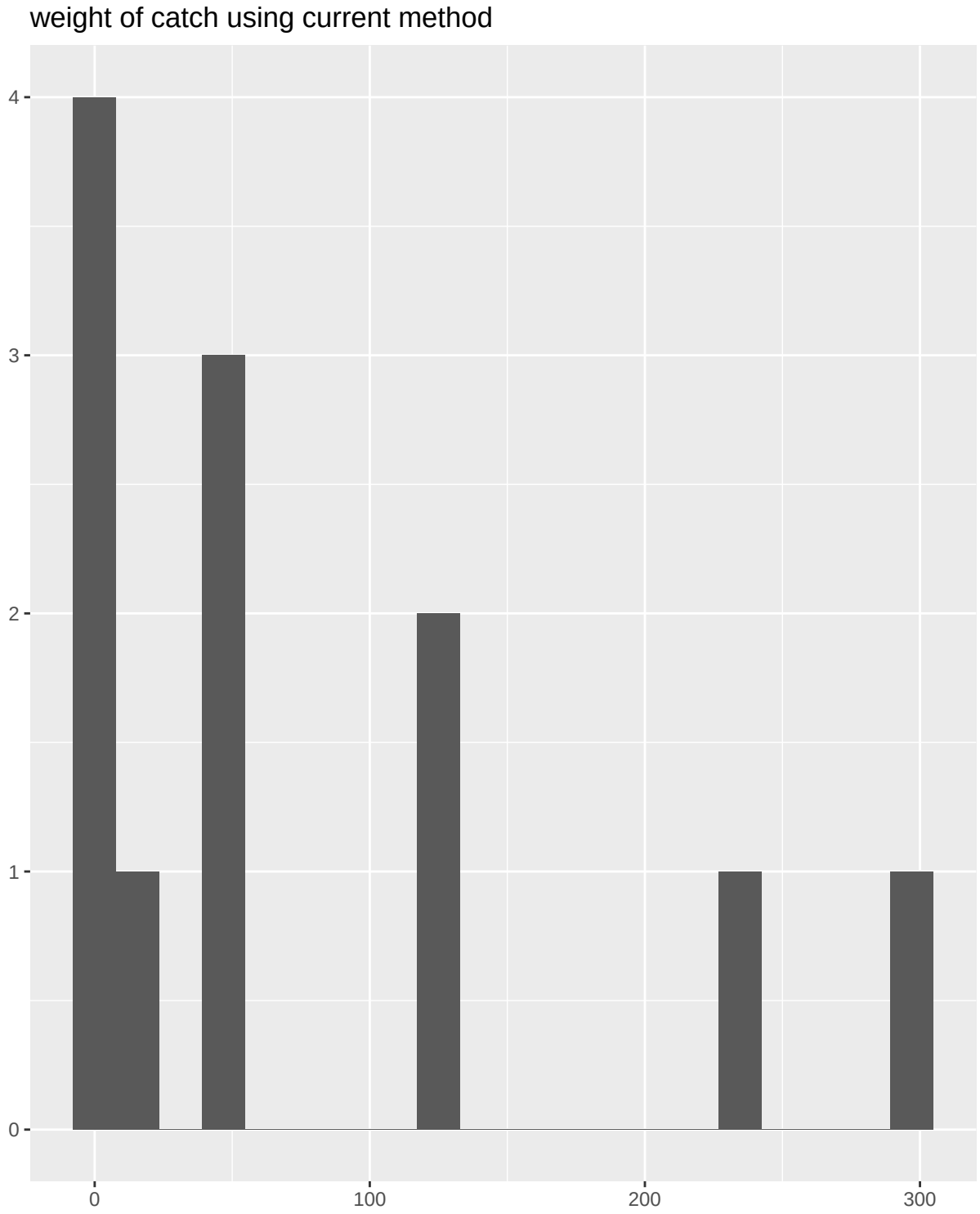

location of method
6
4
2
0
Lagoon
Open water outside reef (oceanic)
Outer reef
Reef flats

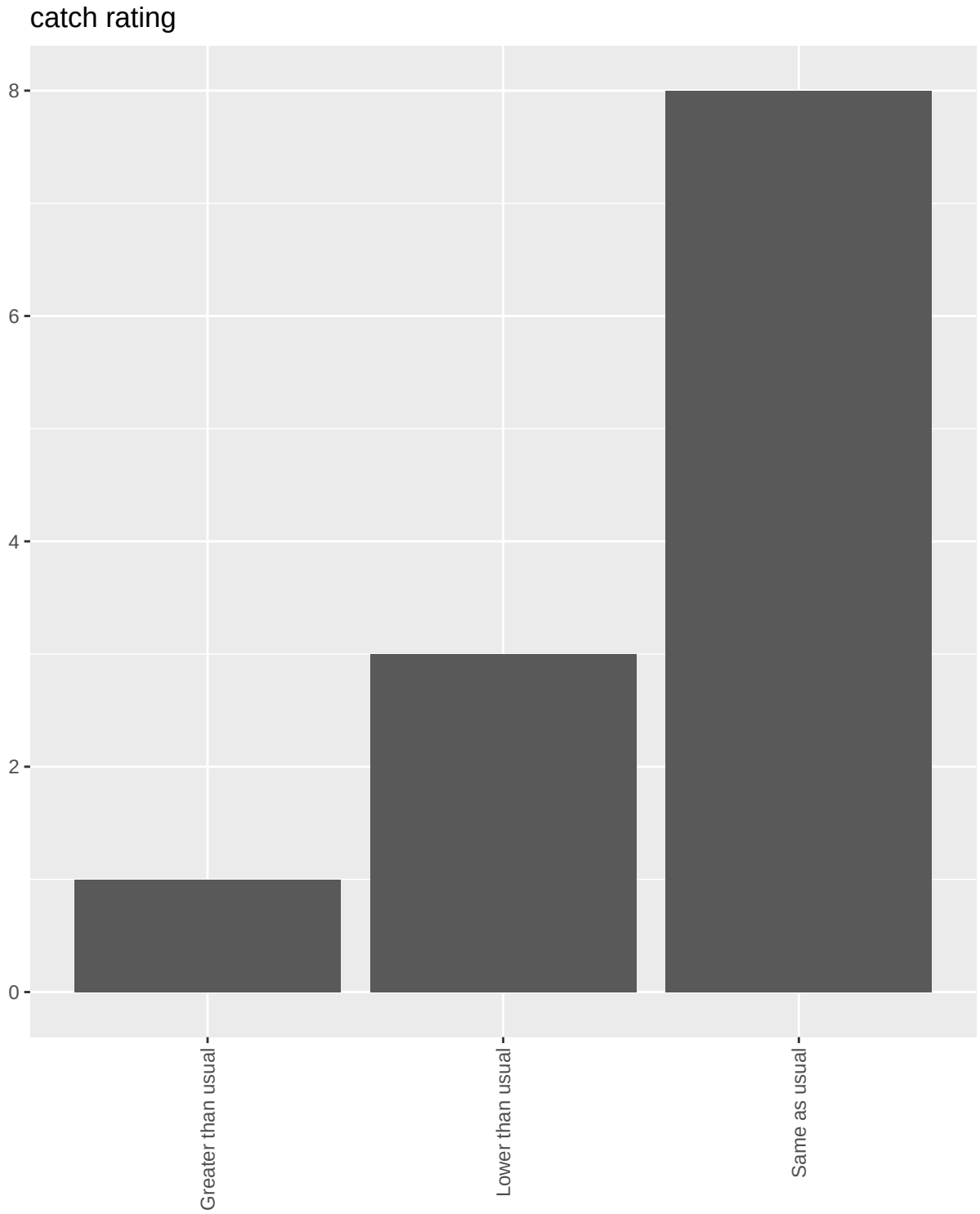

vessel used
6
4
2
0
Large skiff with outboard motor
No boat
Other method (note)
Traditional canoe with sail or paddle


hours spent on current method
3
2
1
0
0
10
20
30
40

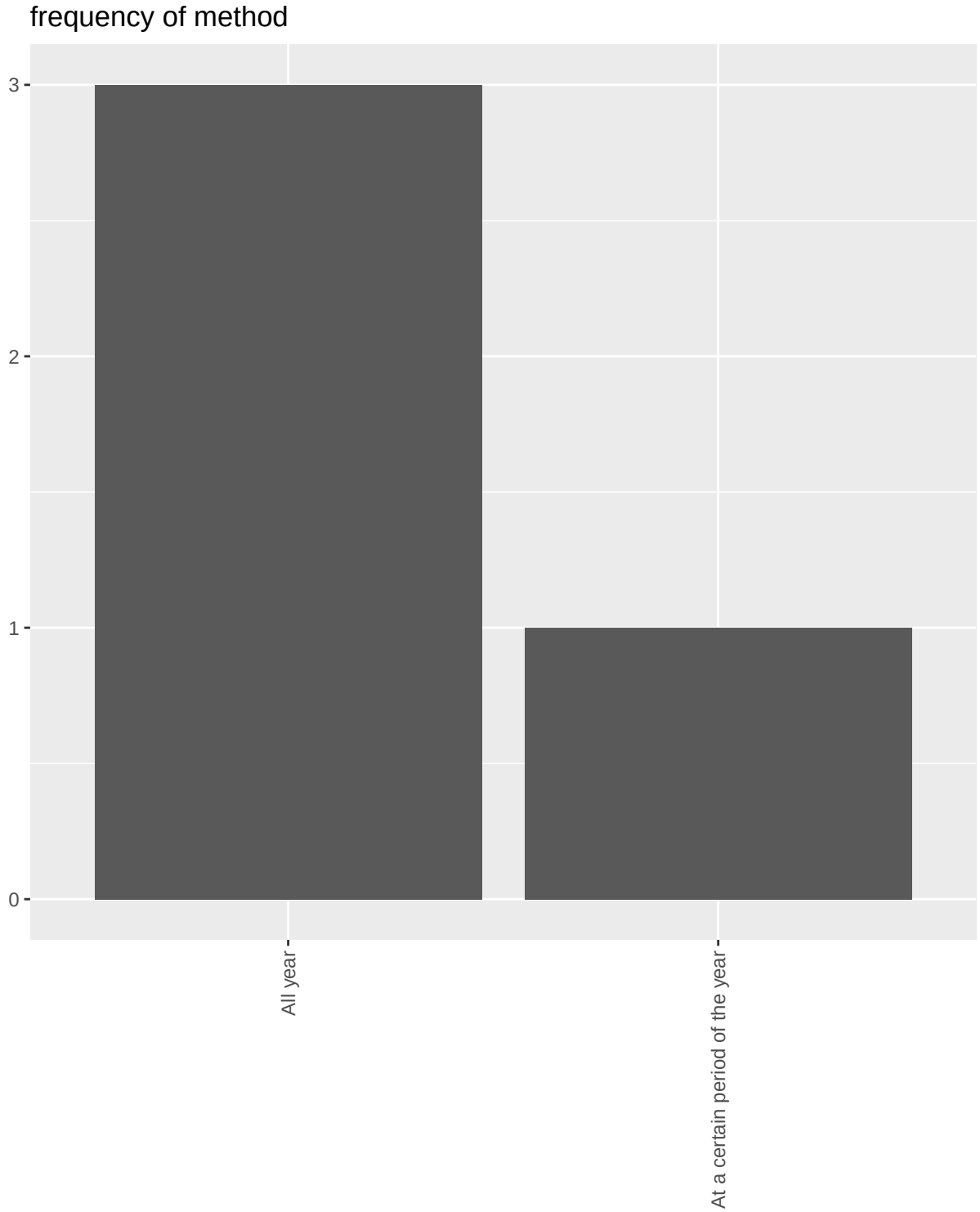

number of fishing trips
4
3
2
1
0
2
4
6
8

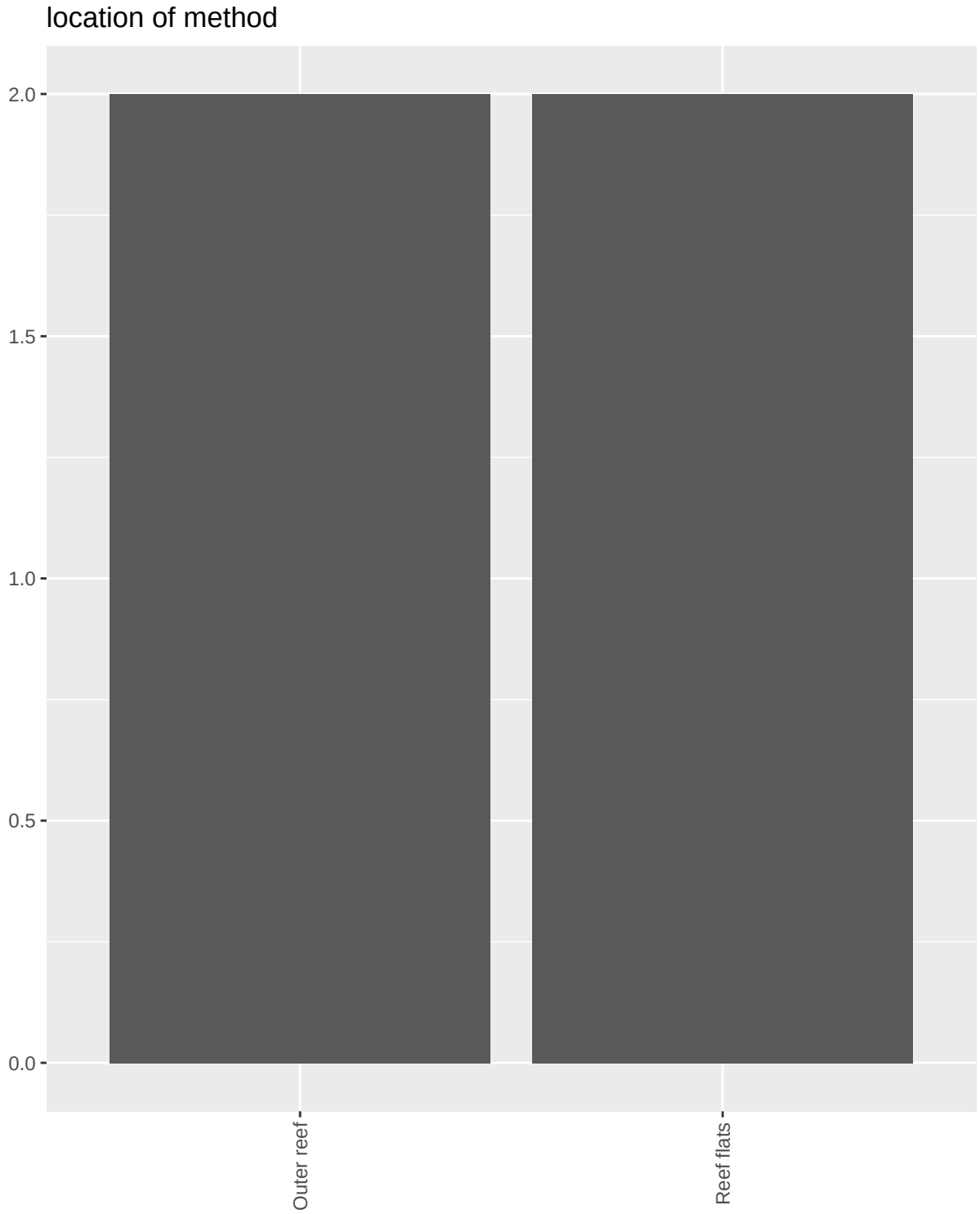

hours spent on the trip to access current method
5
4
3
2
1
0
2
4
6
8

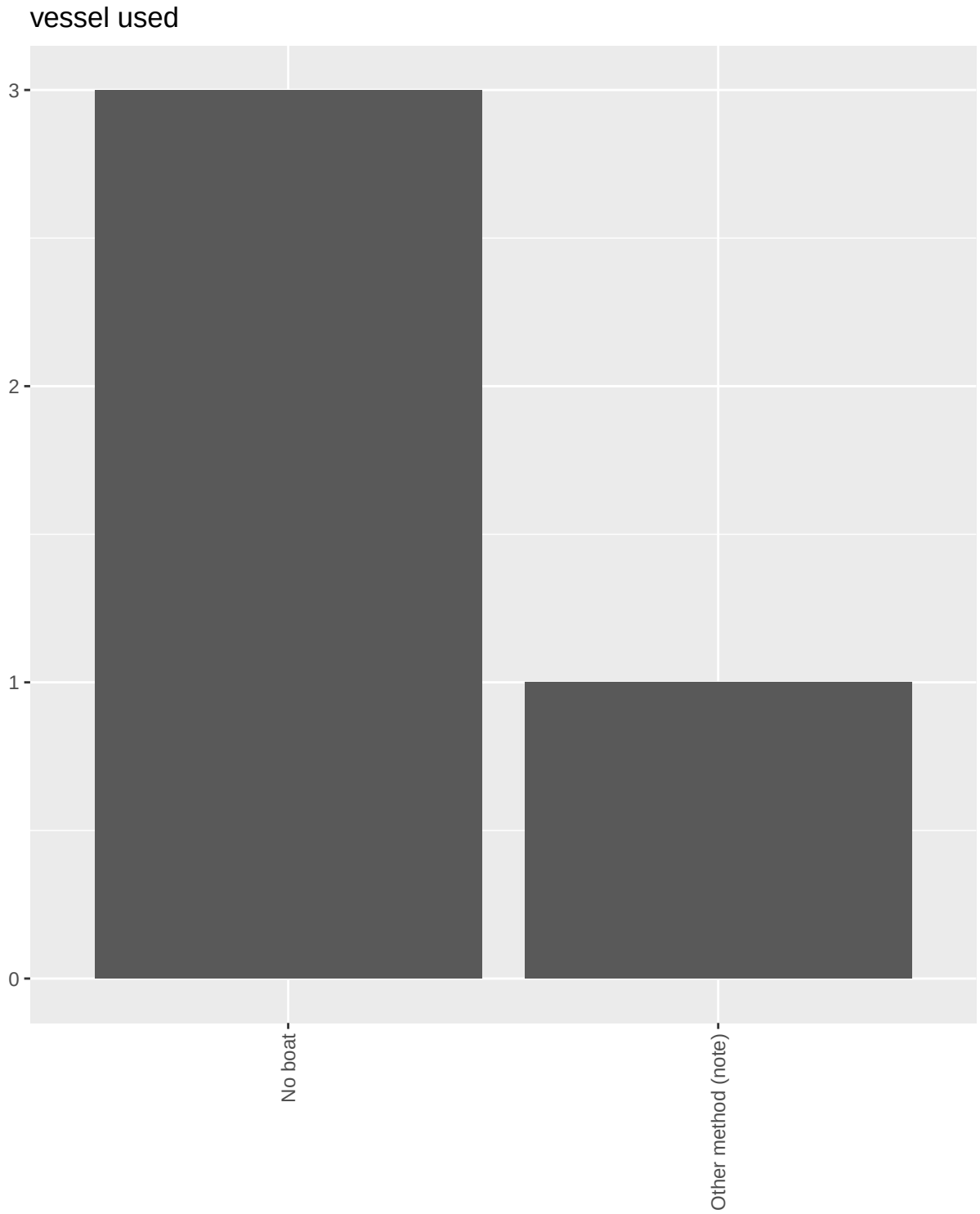

weight of catch using current method
4
3
2
1
0
0
100
200
300

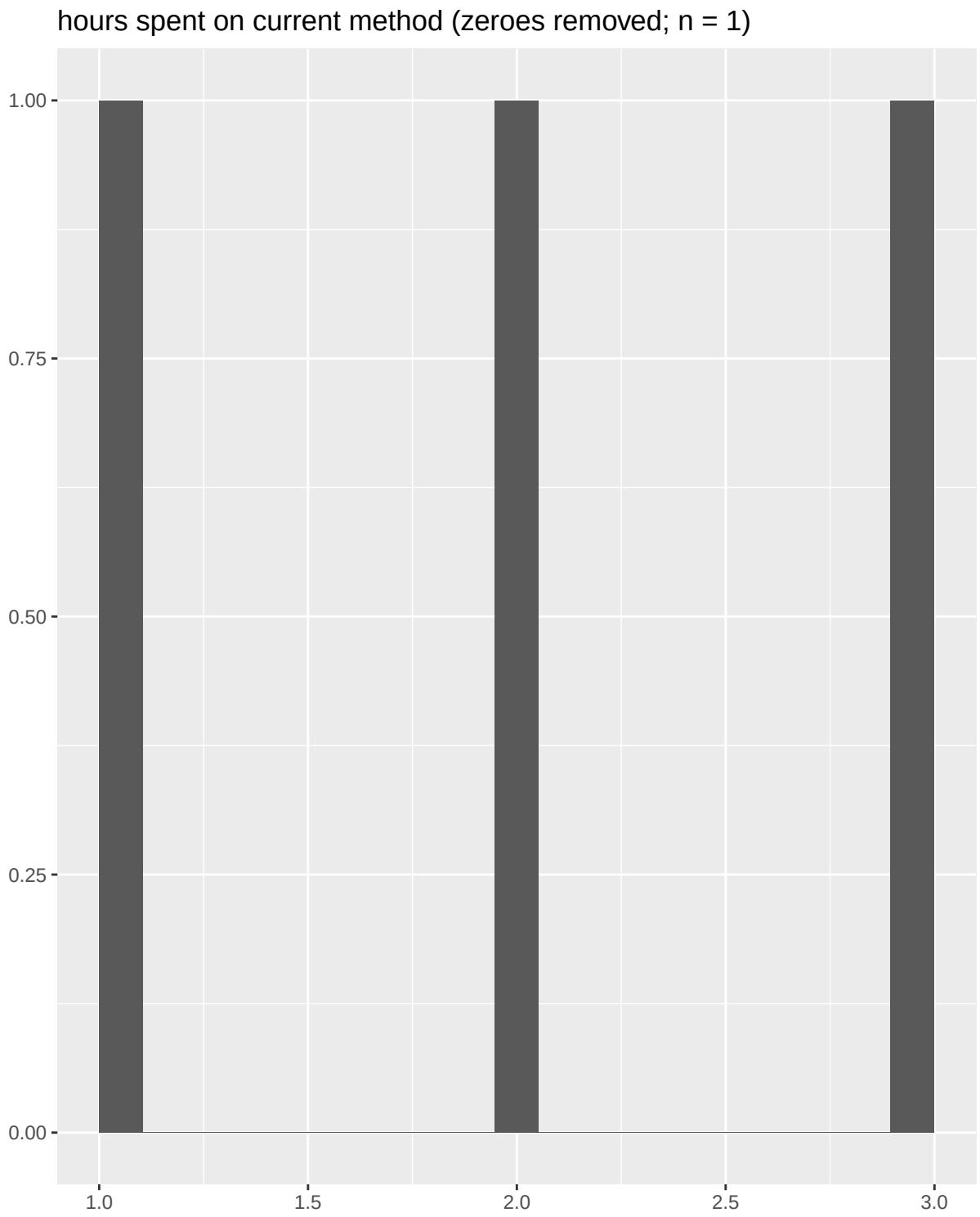

catch rating
8
6
4
2
0
Greater than usual
Lower than usual
Same as usual

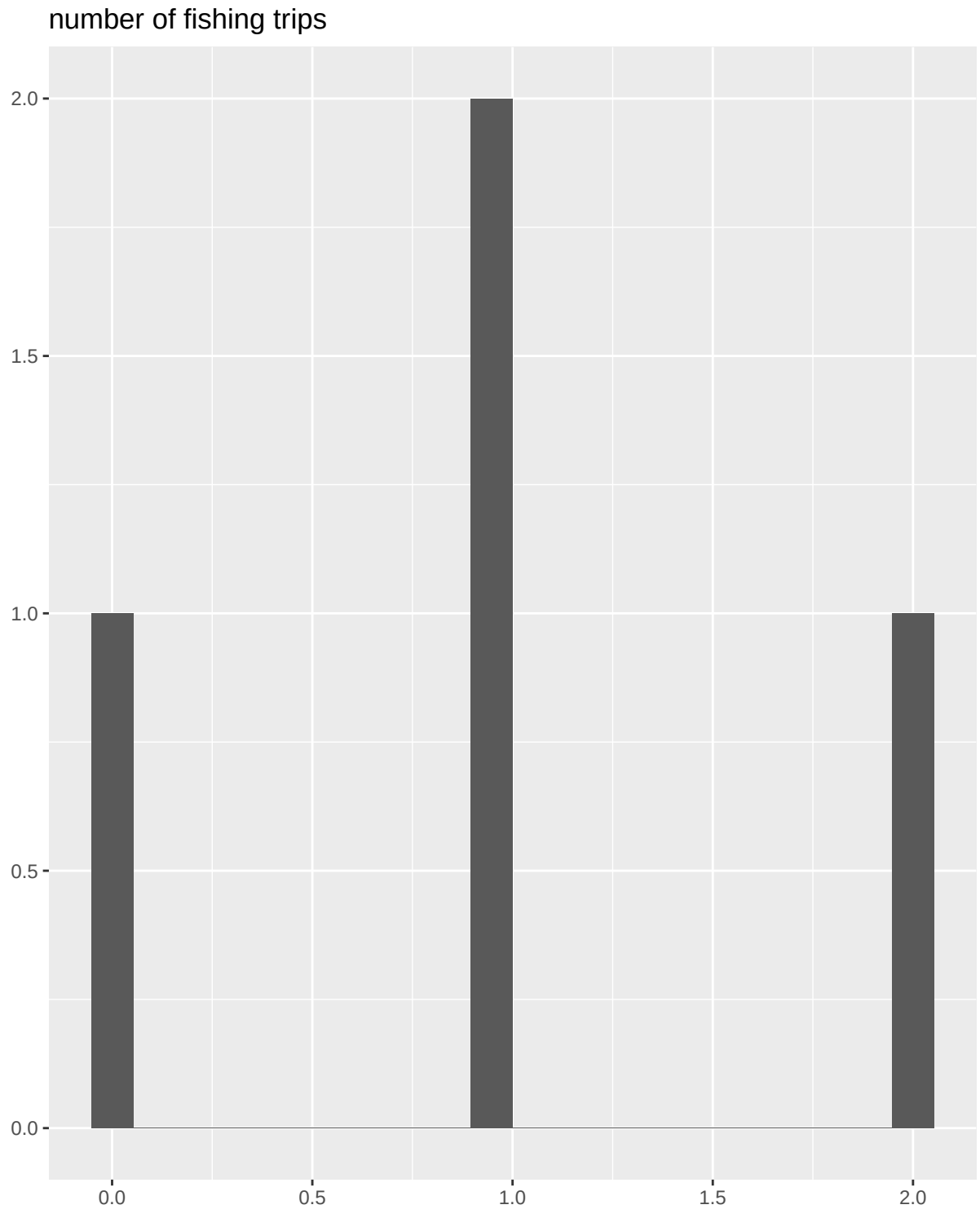
Fishing Method: Diving with SCUBA (Te tebo me te bwai n ikeike)

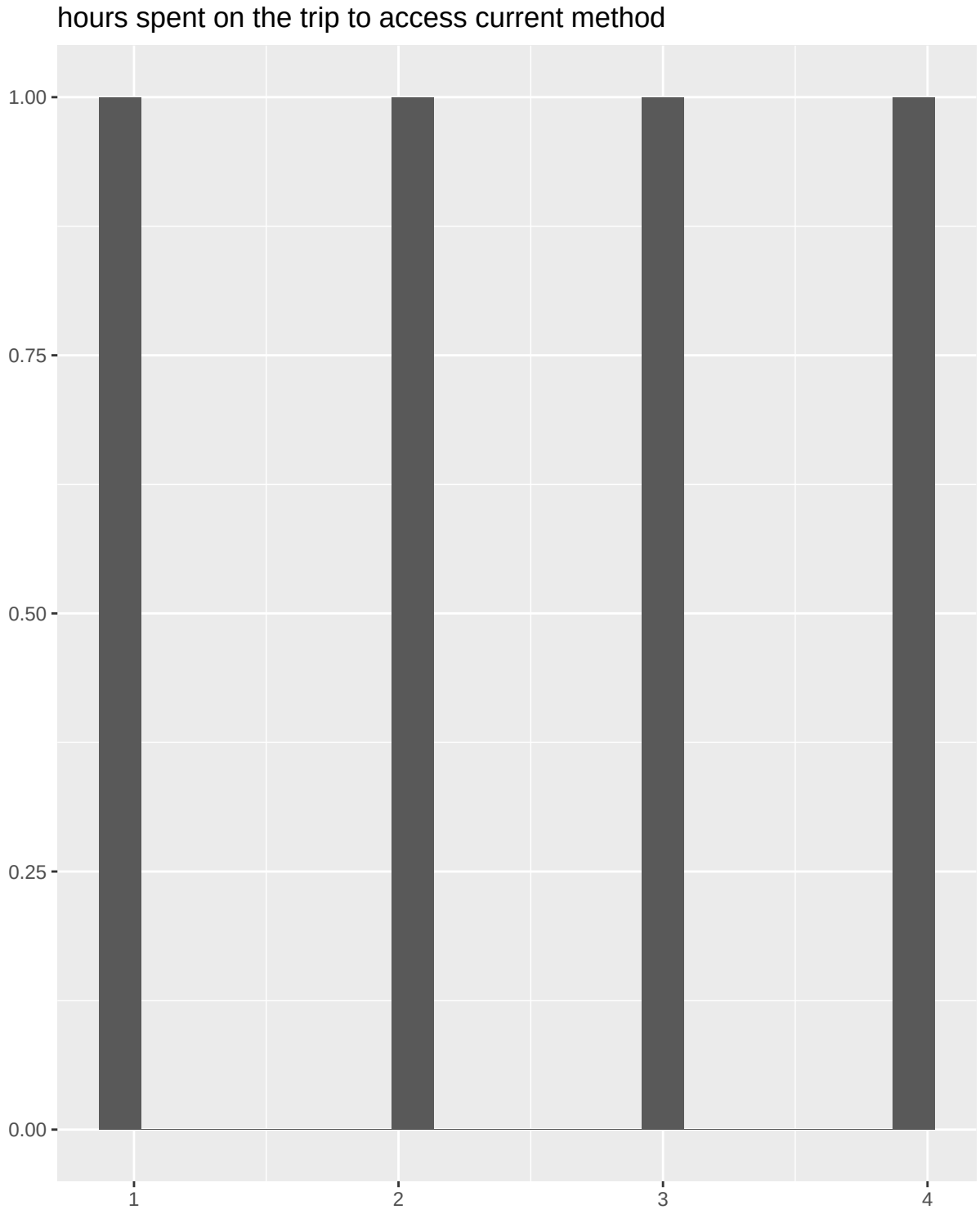


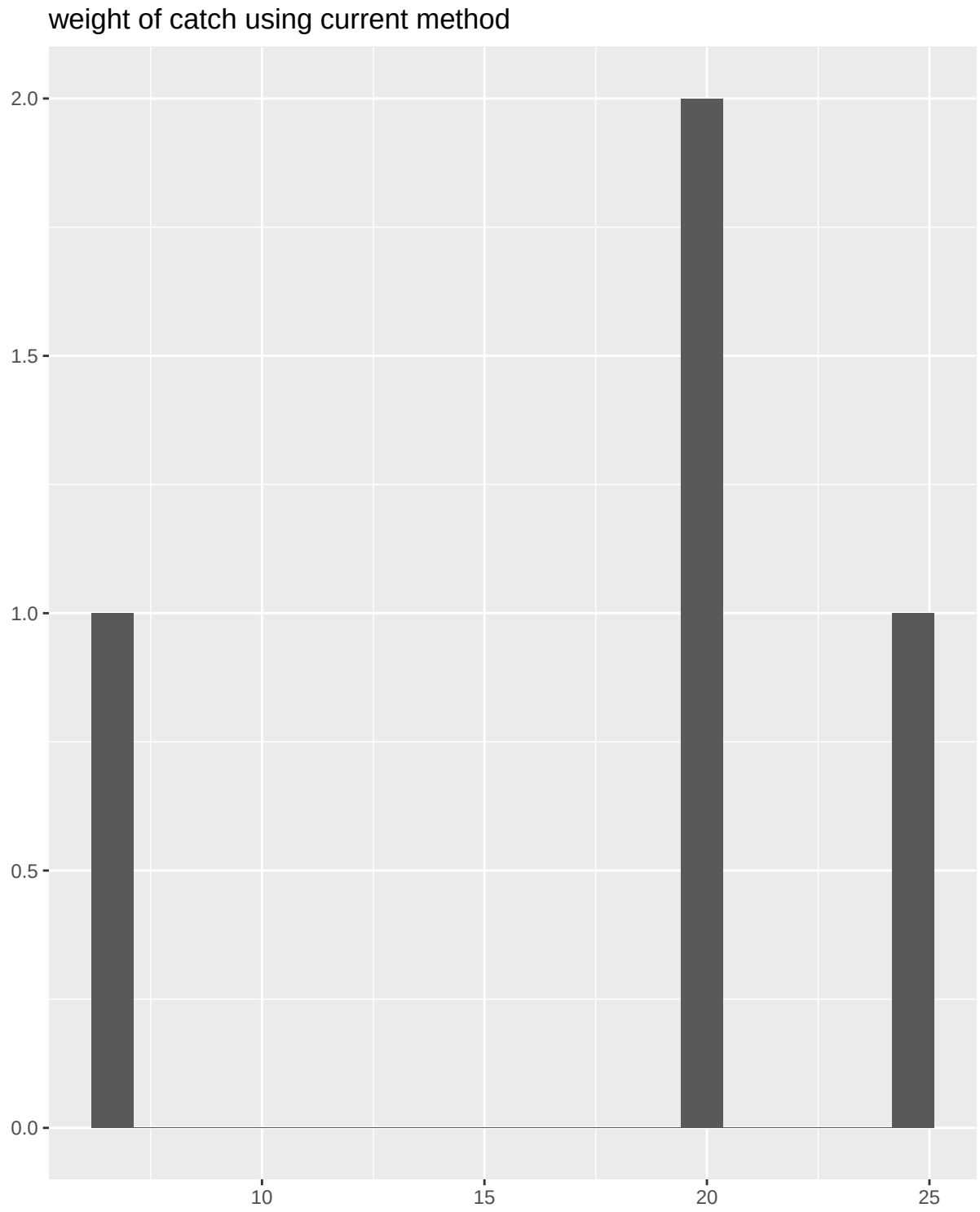

location of method
2.0
1.5
1.0
0.5
0.0
Outer reef
Reef flats

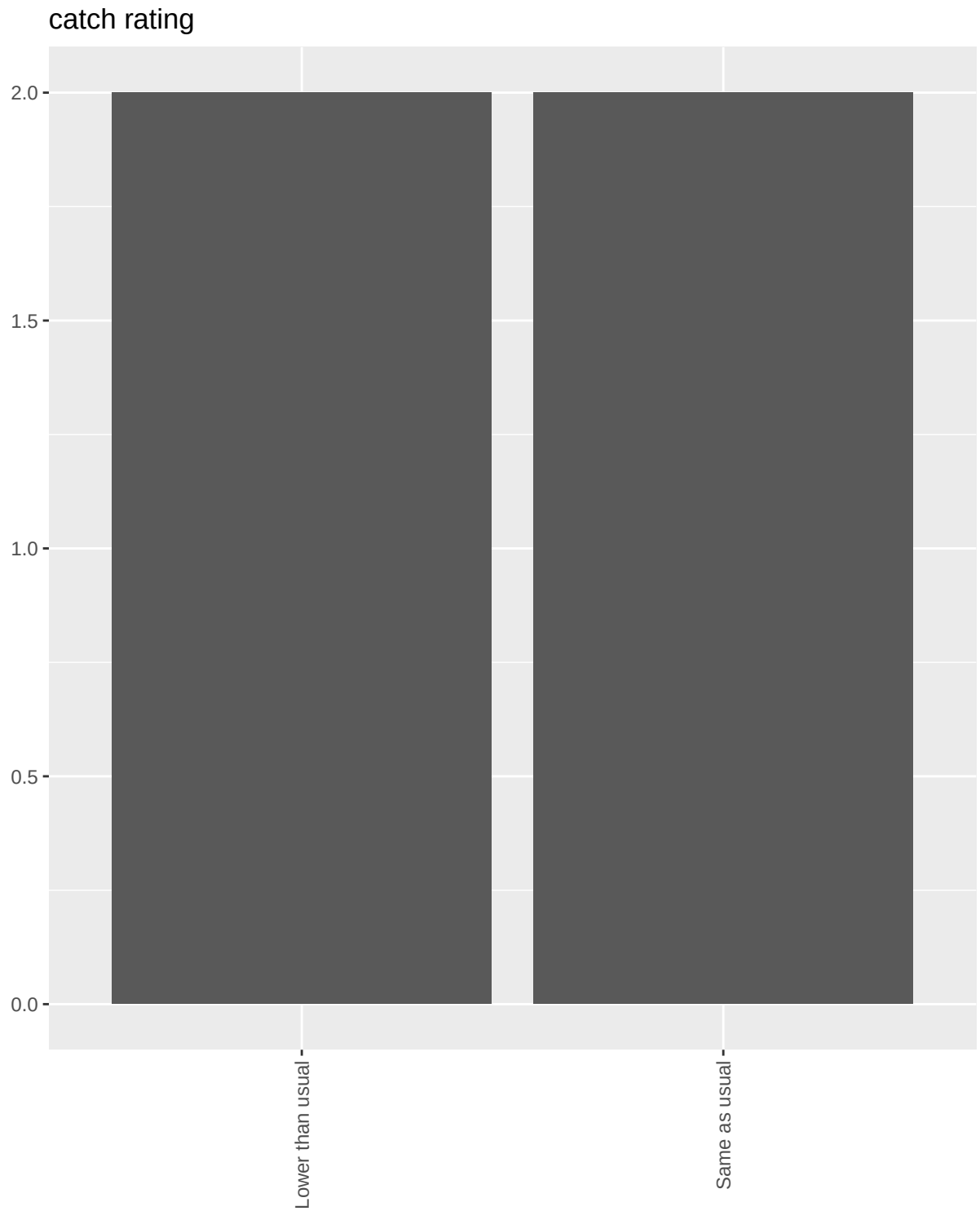

vessel used
3
2
1
0
No boat
Other method (note)

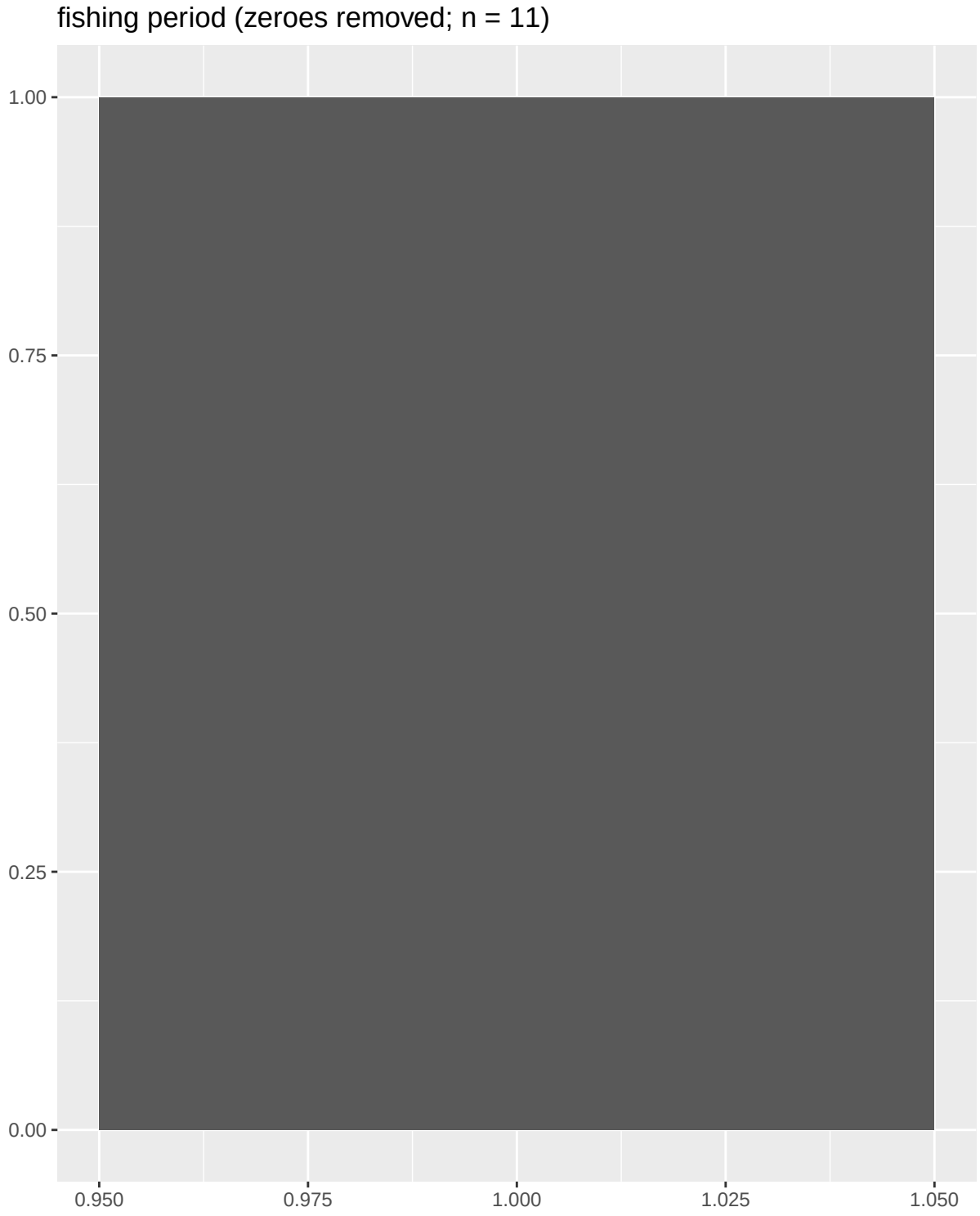

hours spent on current method (zeroes removed; n = 1)
1.00
0.75
0.50
0.25
0.00
1.0
1.5
2.0
2.5
3.0


number of fishing trips
2.0
1.5
1.0
0.5
0.0
0.0
0.5
1.0
1.5
2.0


hours spent on the trip to access current method
1.00
0.75
0.50
0.25
0.00
1
2
3
4


weight of catch using current method
2.0
1.5
1.0
0.5
0.0
10
15
20
25

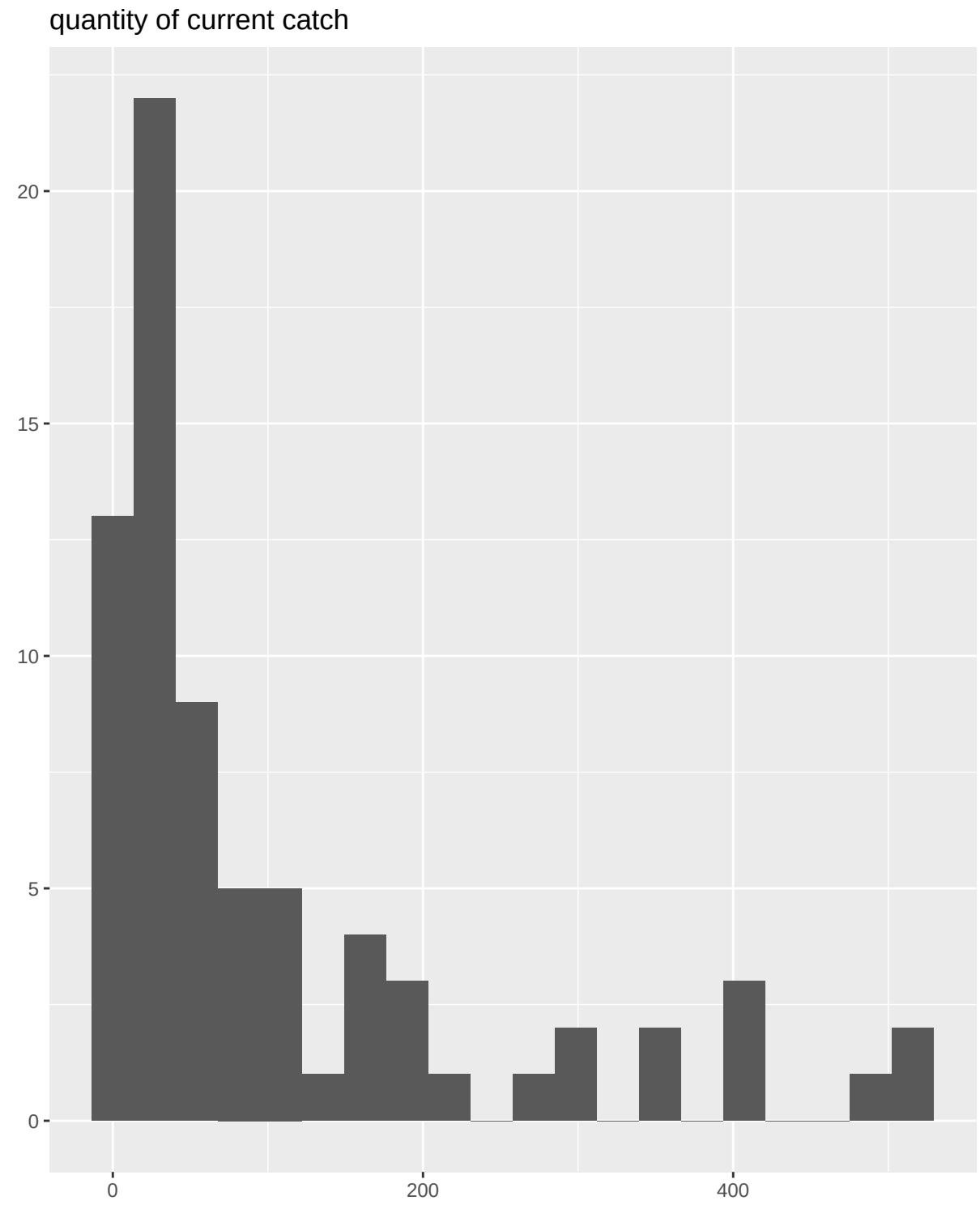

catch rating
2.0
1.5
1.0
0.5
0.0
Lower than usual
Same as usual

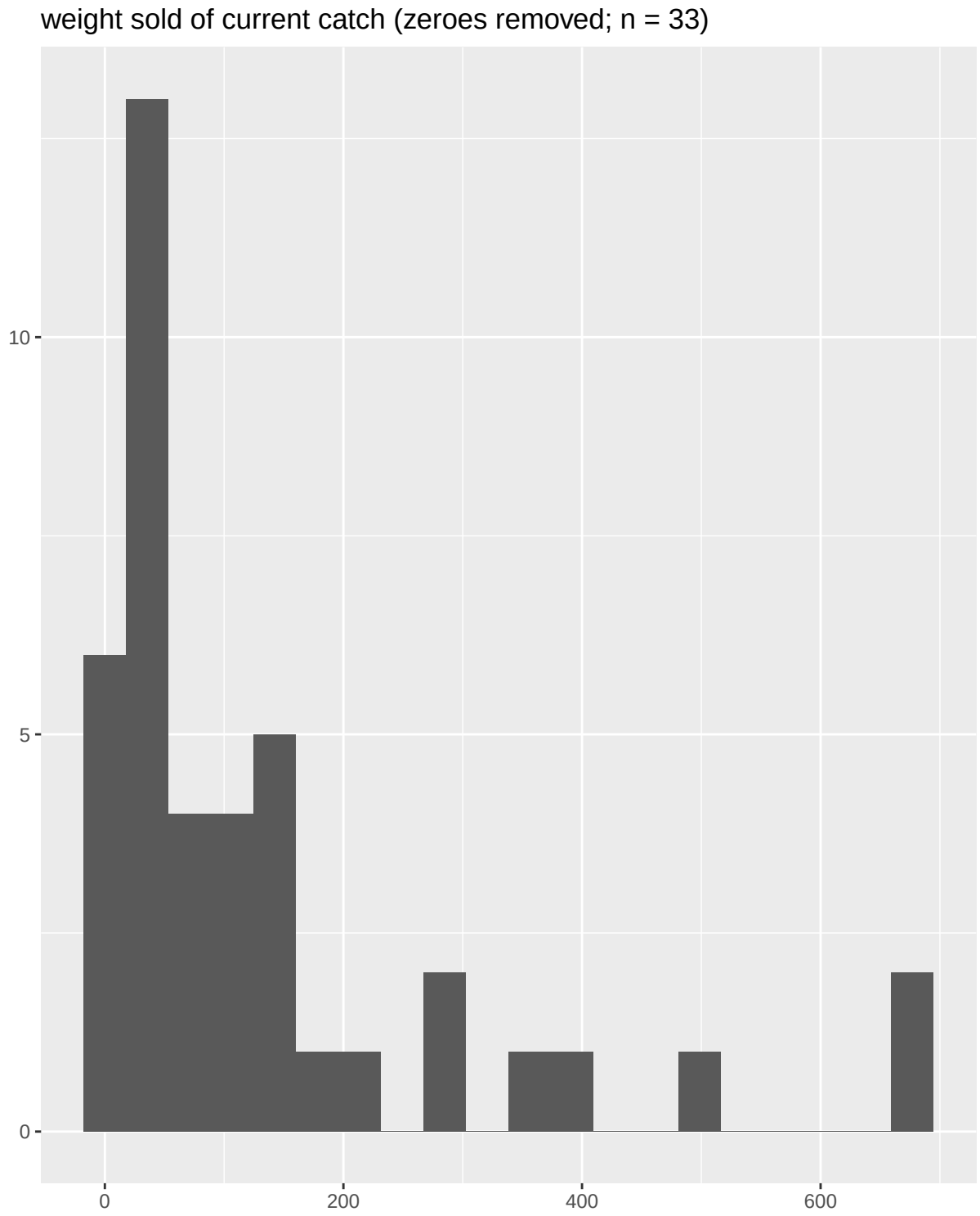

fishing period (zeroes removed; n = 11)
1.00
0.75
0.50
0.25
0.00
0.950
0.975
1.000
1.025
1.050

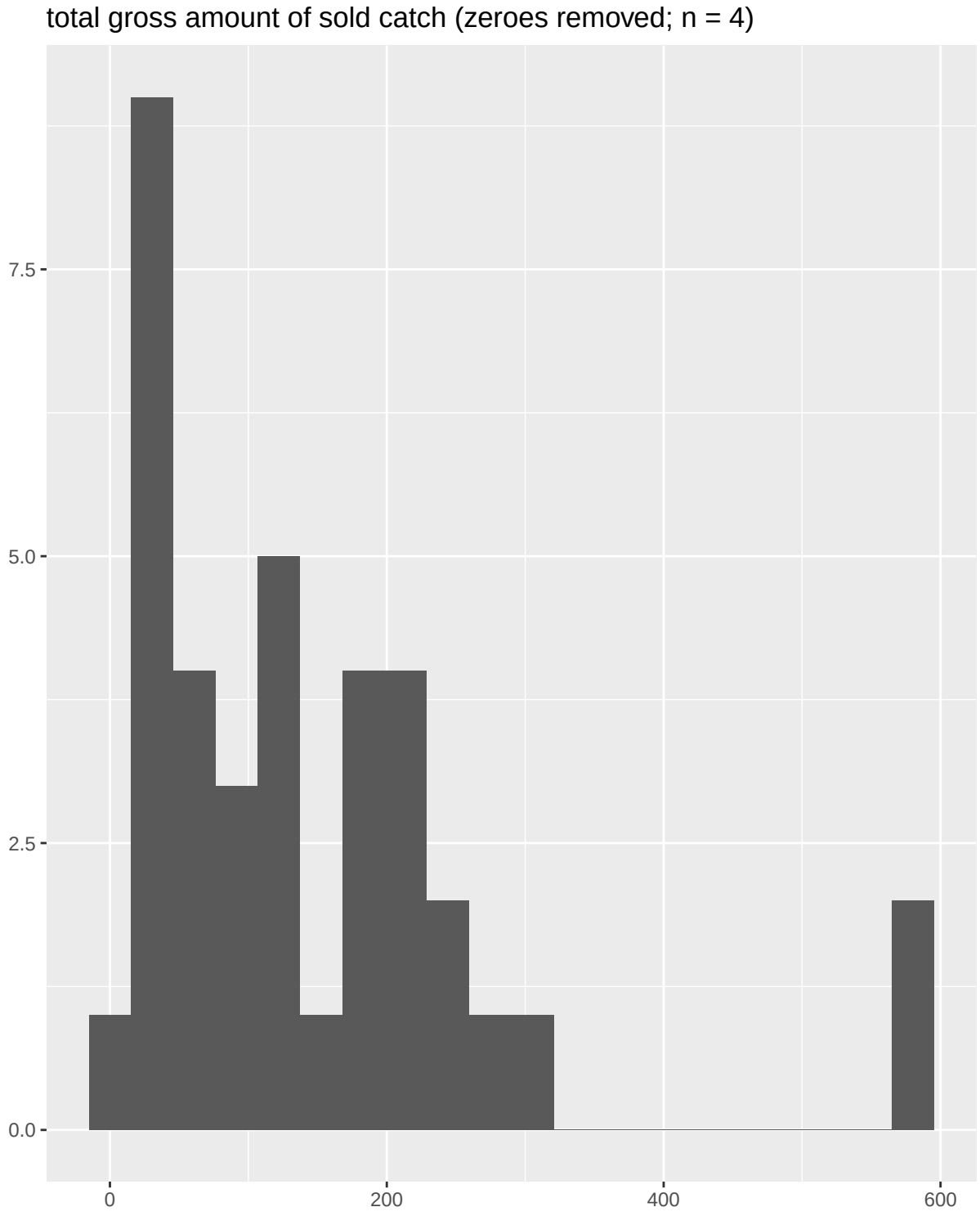
Other Fisheries (p922r) data

```
## # A tibble: 18 x 1
##    p922r__id
##    <chr>
##  1 Tuna (skipjack, yellow fin, etc.)
##  2 Carnivorous reef fish (emperor, snapper, jacks etc.)
##  3 Other oceanic fish (Wahoo, mahi mahi, rainbow runner, billfish, etc.)
##  4 Land crab (mud crab, coconut crab, etc.)
##  5 Other catch(note)
##  6 Herbivorous reef fish (parrotfish, rabbitfish, surgeonfish, etc.)
##  7 Lagoon and sand flat fish (goatfish, silver biddy, mullet, bonefish, milkfis~
##  8 Lobsters
##  9 Sea worm / peanut worm (ipo worm)
## 10 Other non-finfish (note) - other bivalves, ocean crabs, octopus, etc
## 11 Cockles (arc shell, te bun)
## 12 Sea snails (trochus, etc)
## 13 Sea noodles / sea grapes
## 14 Other fish (flying fish, etc.) (note)
## 15 Sharks
## 16 Aquarium trade (coral sponges, small colorful fish)
## 17 Clams
## 18 Sea cucumber
```

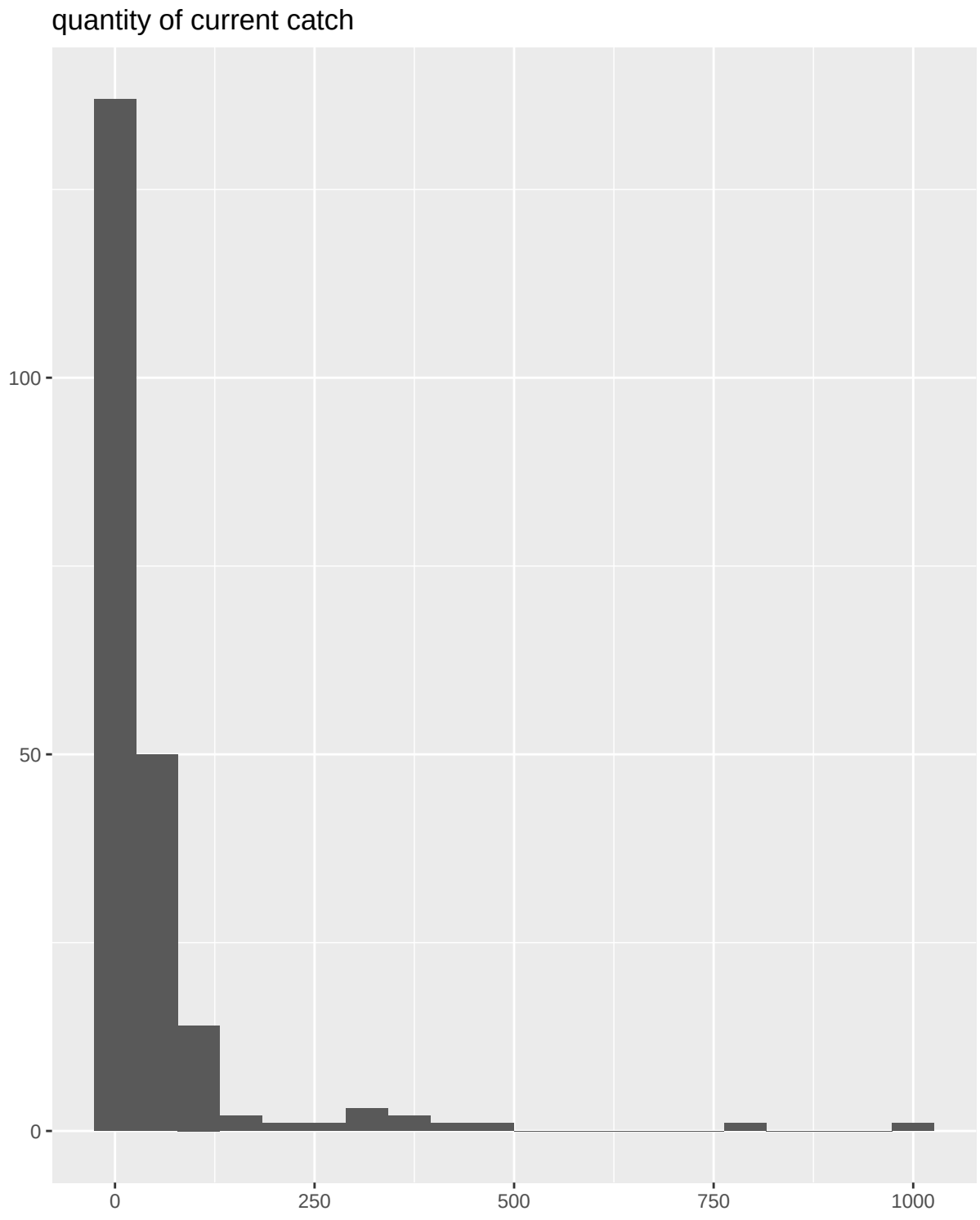
Catch: Tuna (skipjack, yellow fin, etc.)

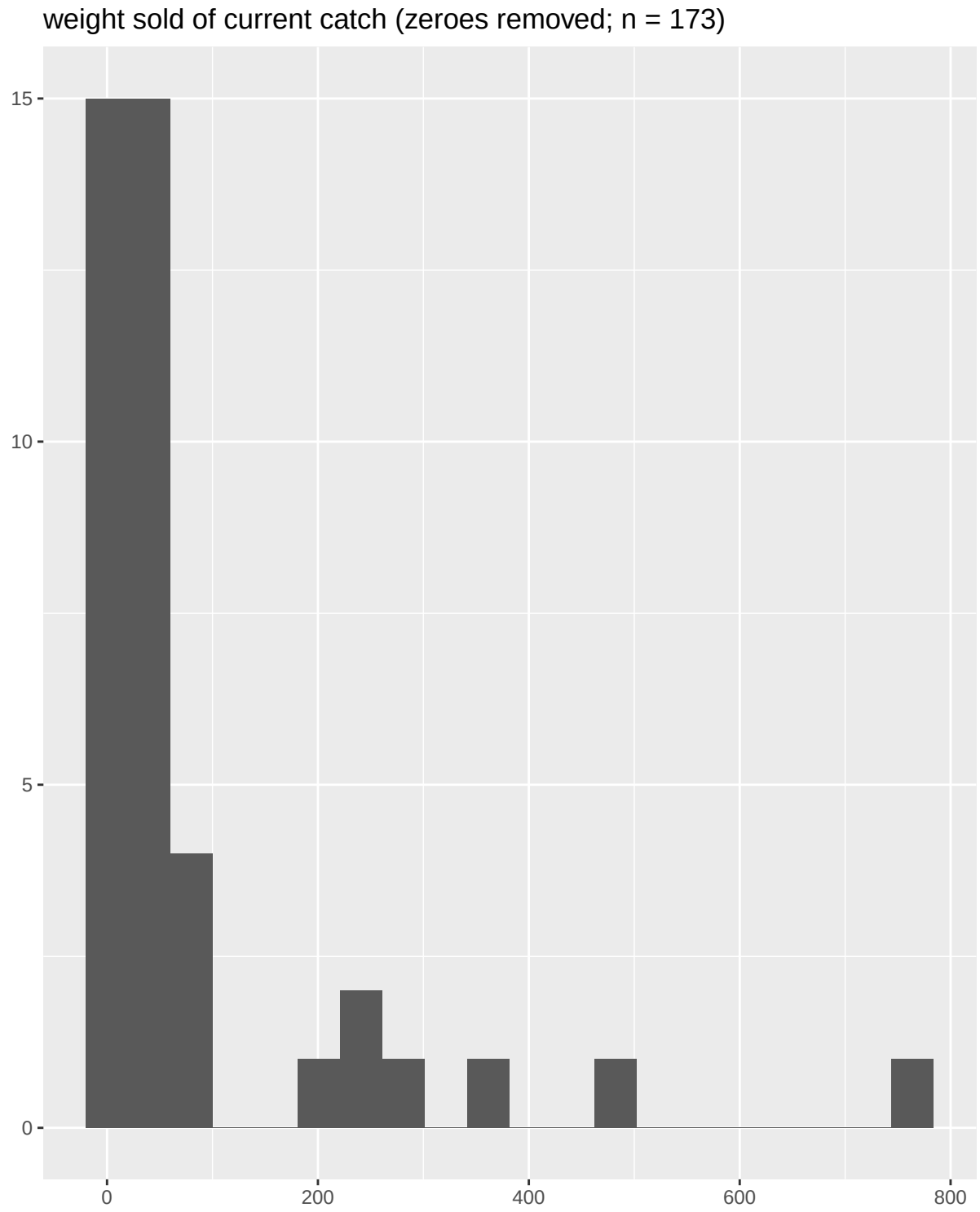


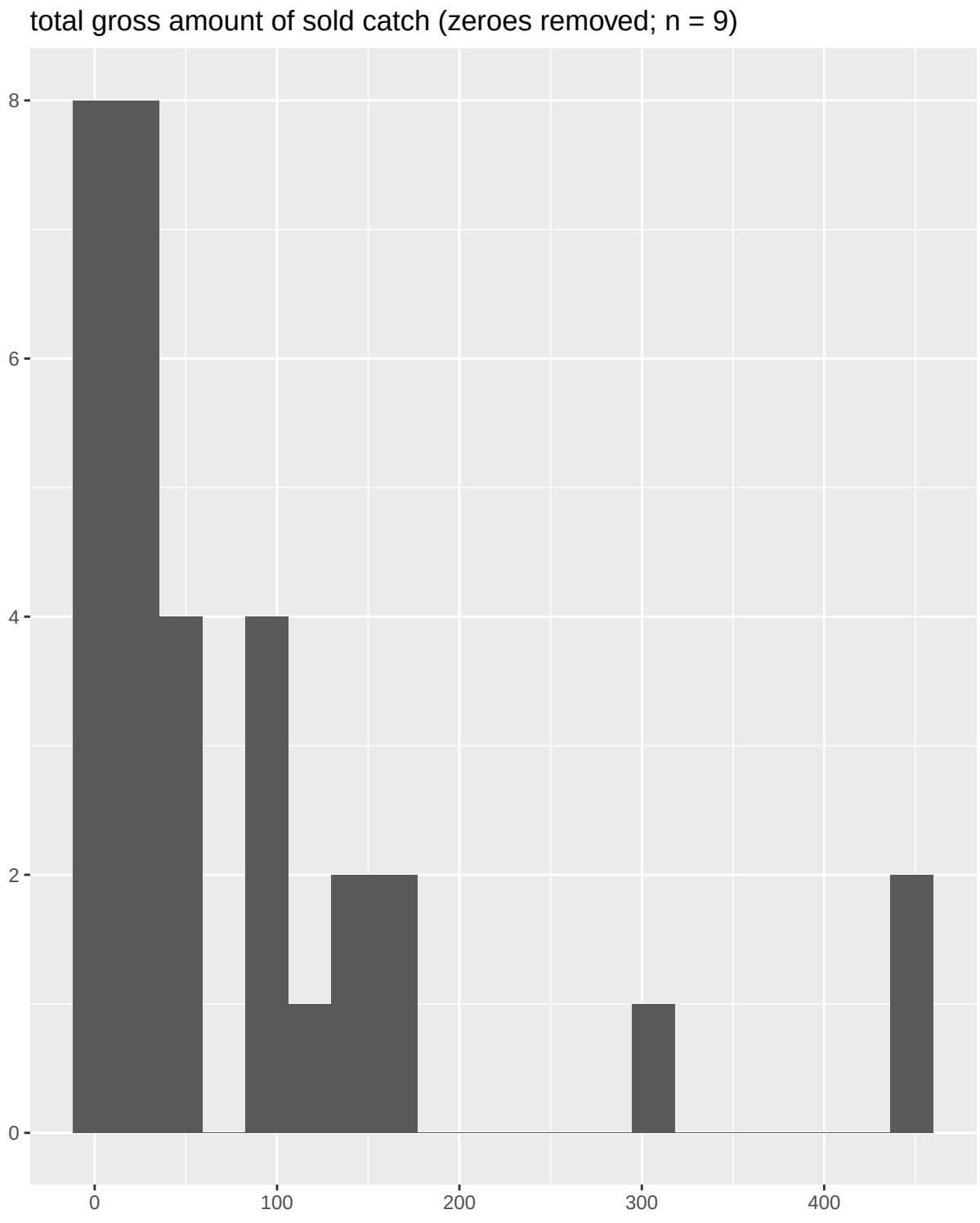

weight sold of current catch (zeroes removed; n = 33)
10
5
0
0
200
400
600


total gross amount of sold catch (zeroes removed; n = 4)
7.5
5.0
2.5
0.0
0
200
400
600

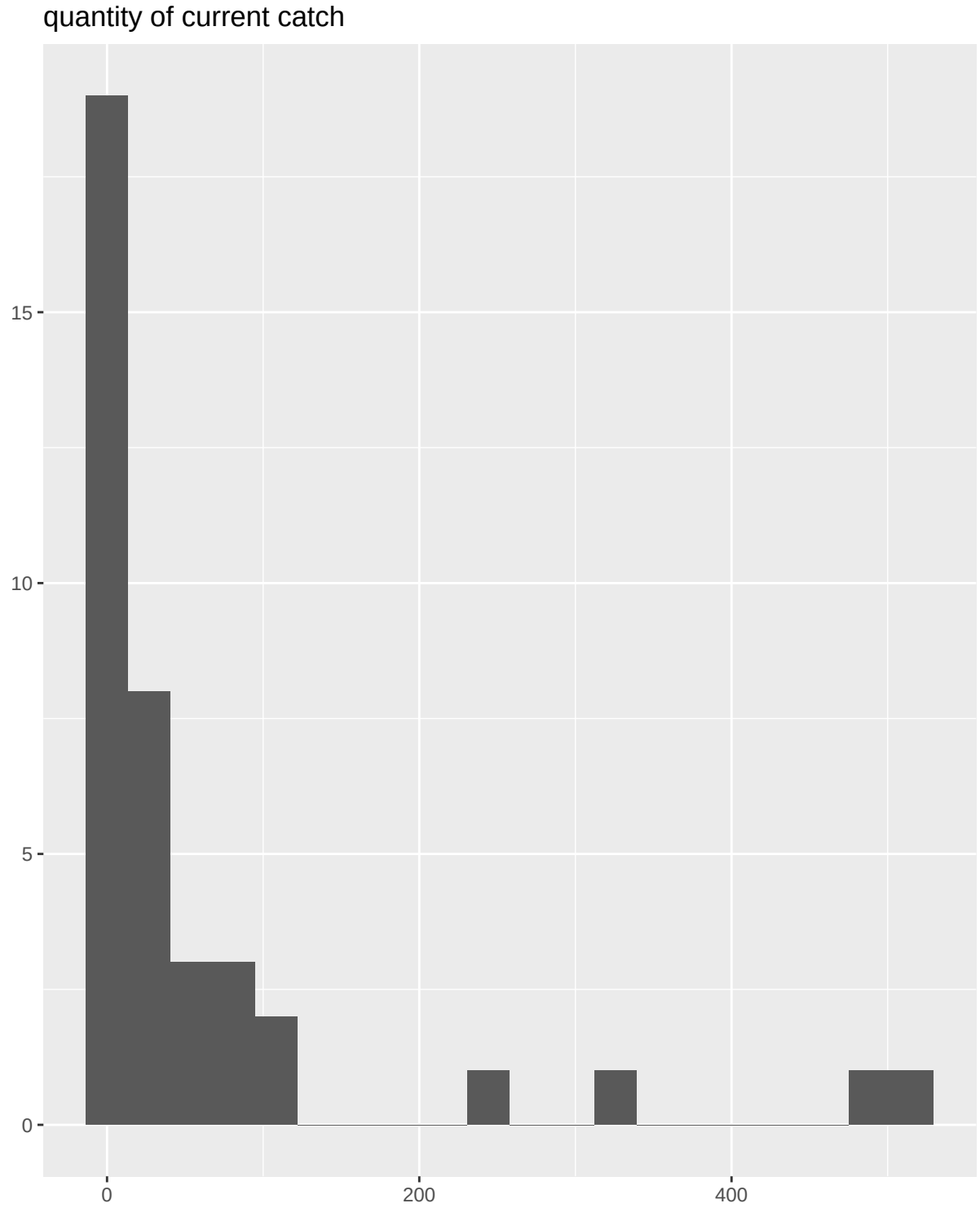
Catch: Carnivorous reef fish (emperor, snapper, jacks etc.)

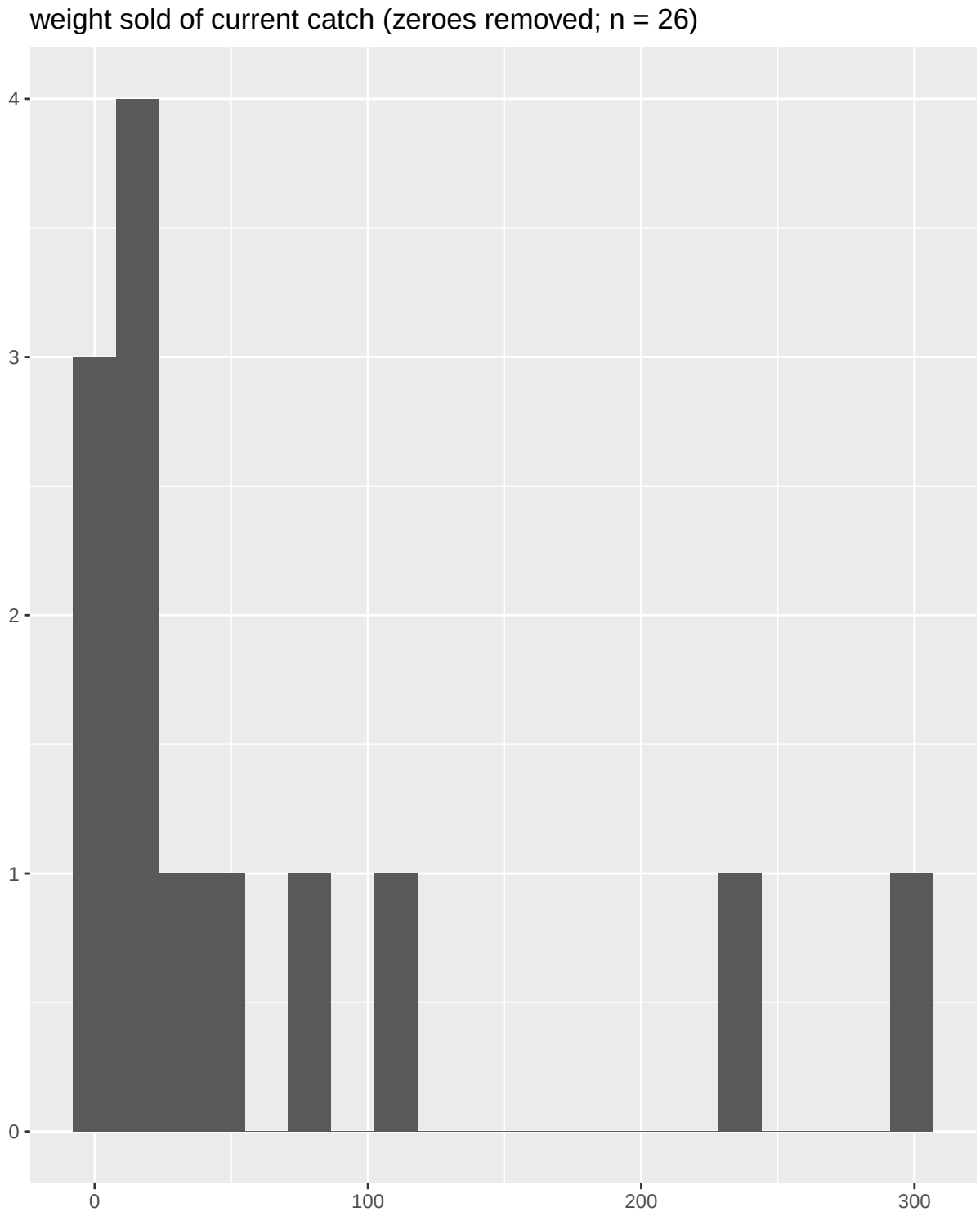


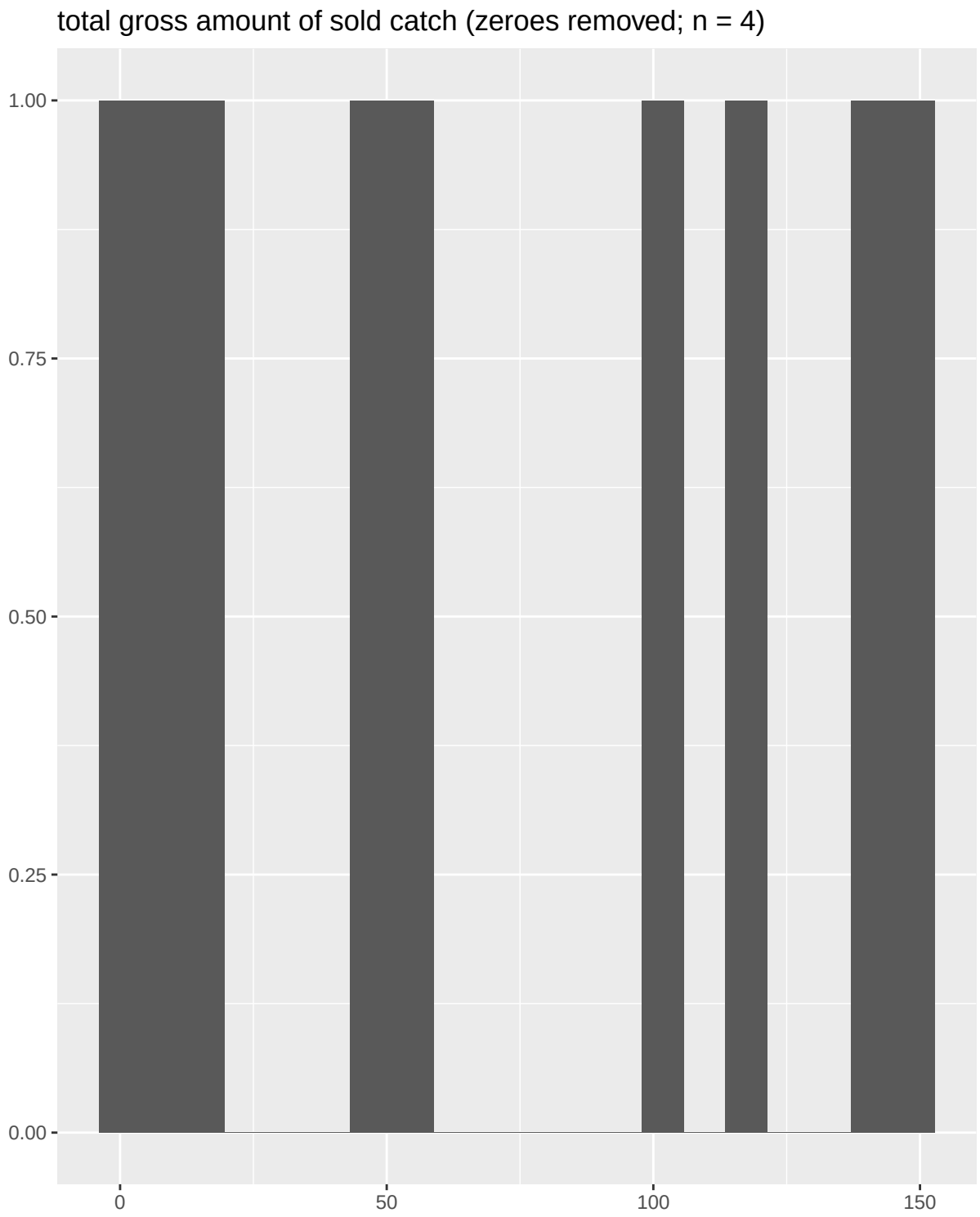

weight sold of current catch (zeroes removed; n = 173)
15
10
5
0
0
200
400
600
800


total gross amount of sold catch (zeroes removed; n = 9)
8
6
4
2
0
0
100
200
300
400

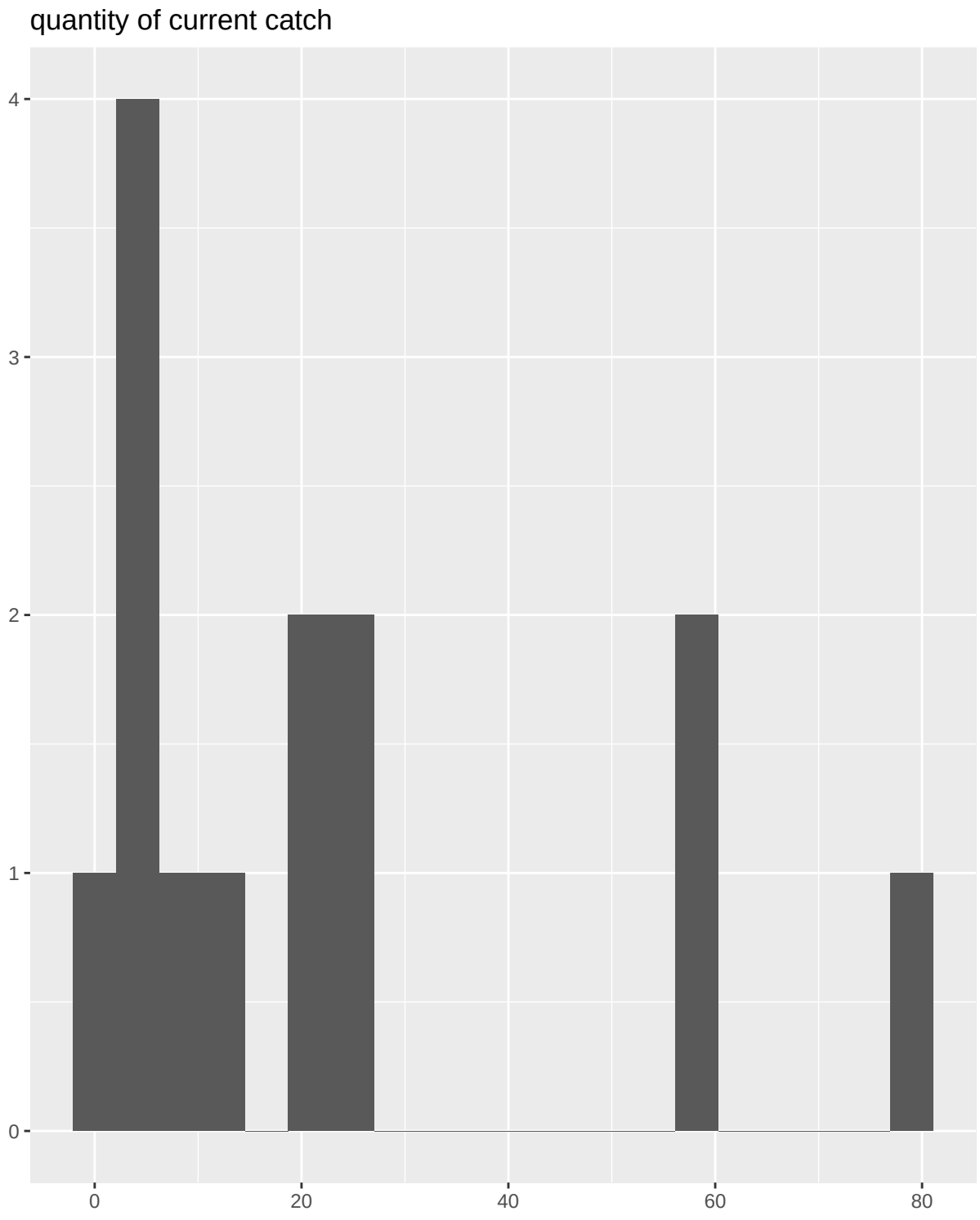
Catch: Other oceanic fish (Wahoo, mahi mahi, rainbow runner, billfish, etc.)



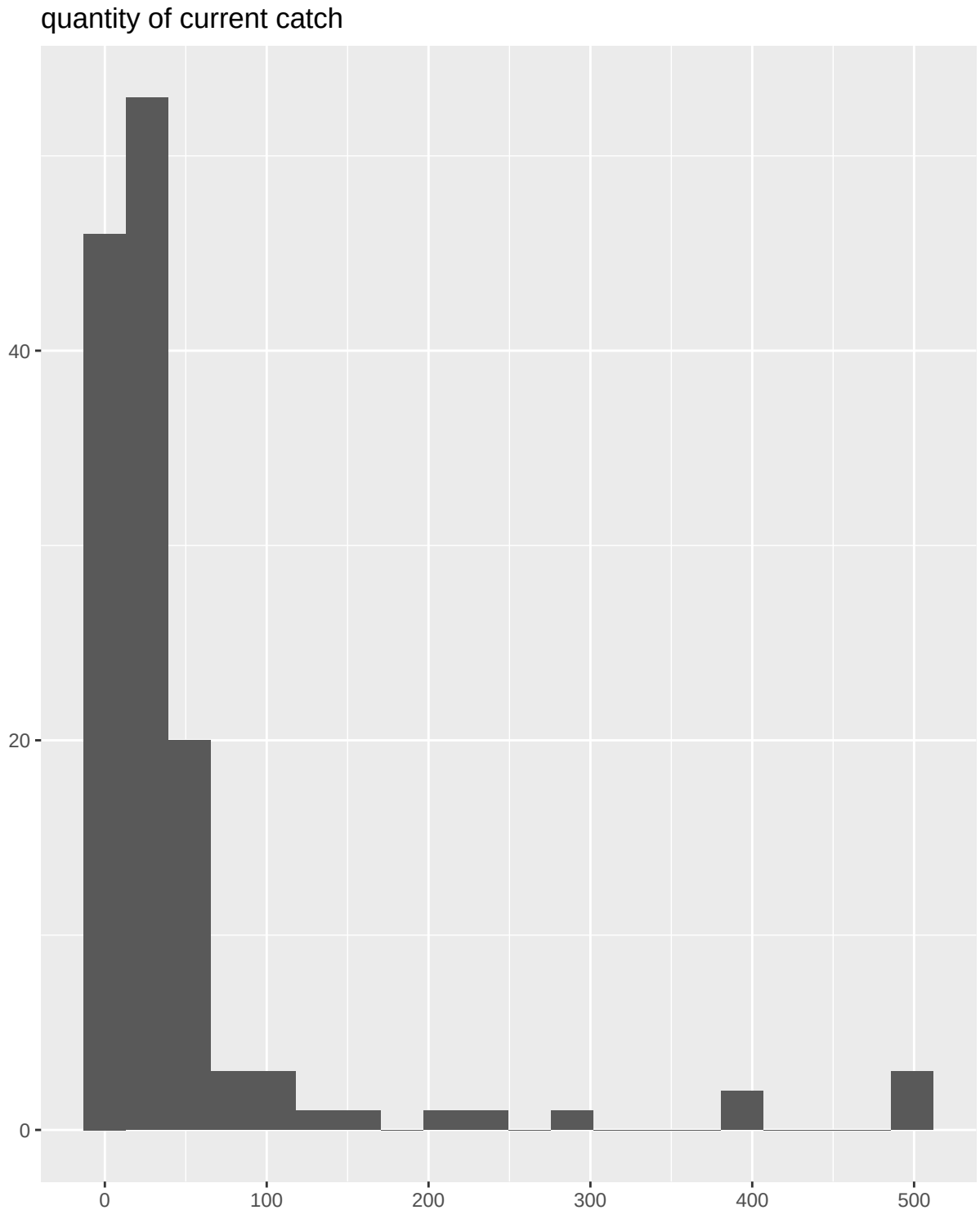

weight sold of current catch (zeroes removed; n = 26)
4
3
2
1
0
0
100
200
300

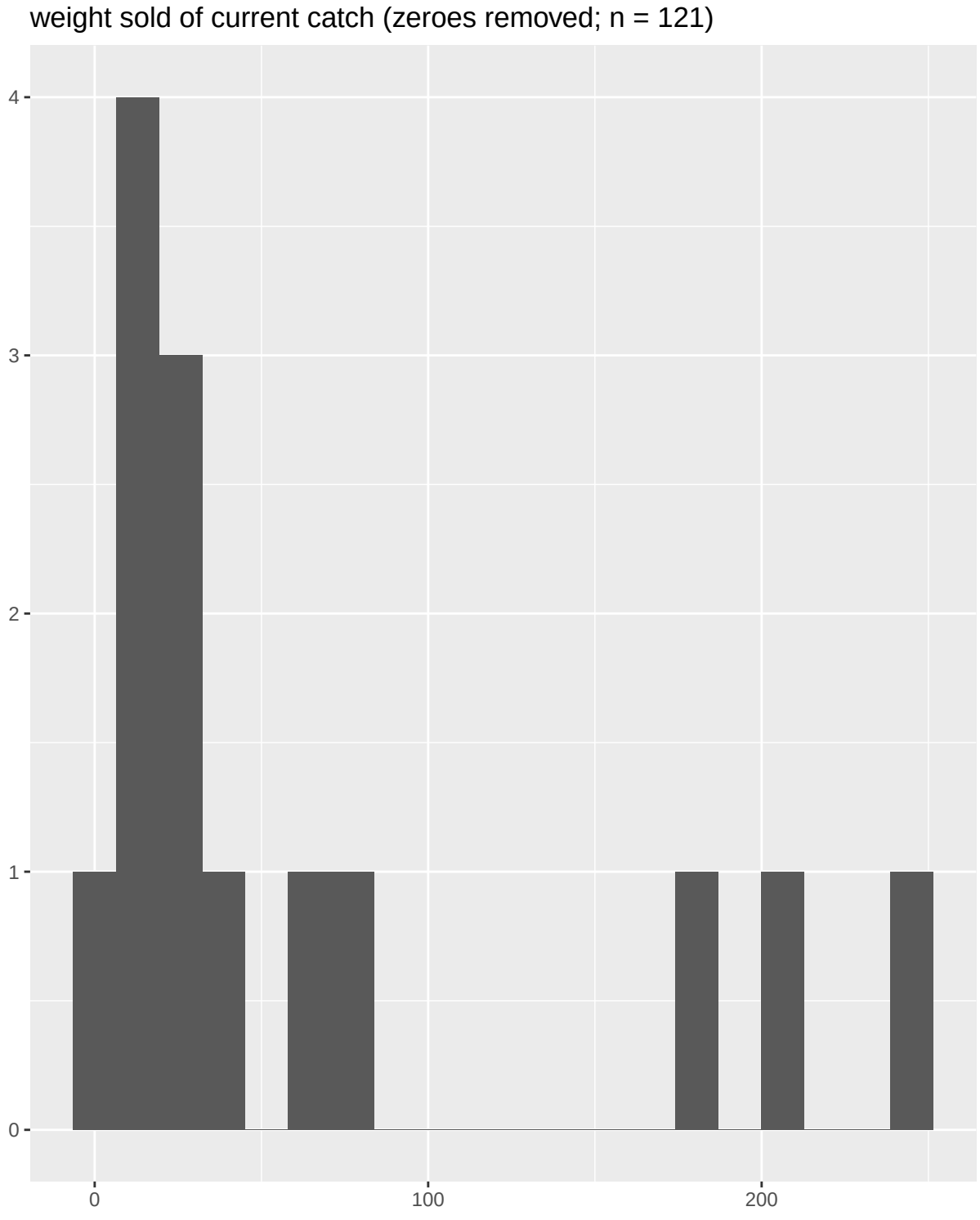

total gross amount of sold catch (zeroes removed; n = 4)
1.00
0.75
0.50
0.25
0.00
0
50
100
150

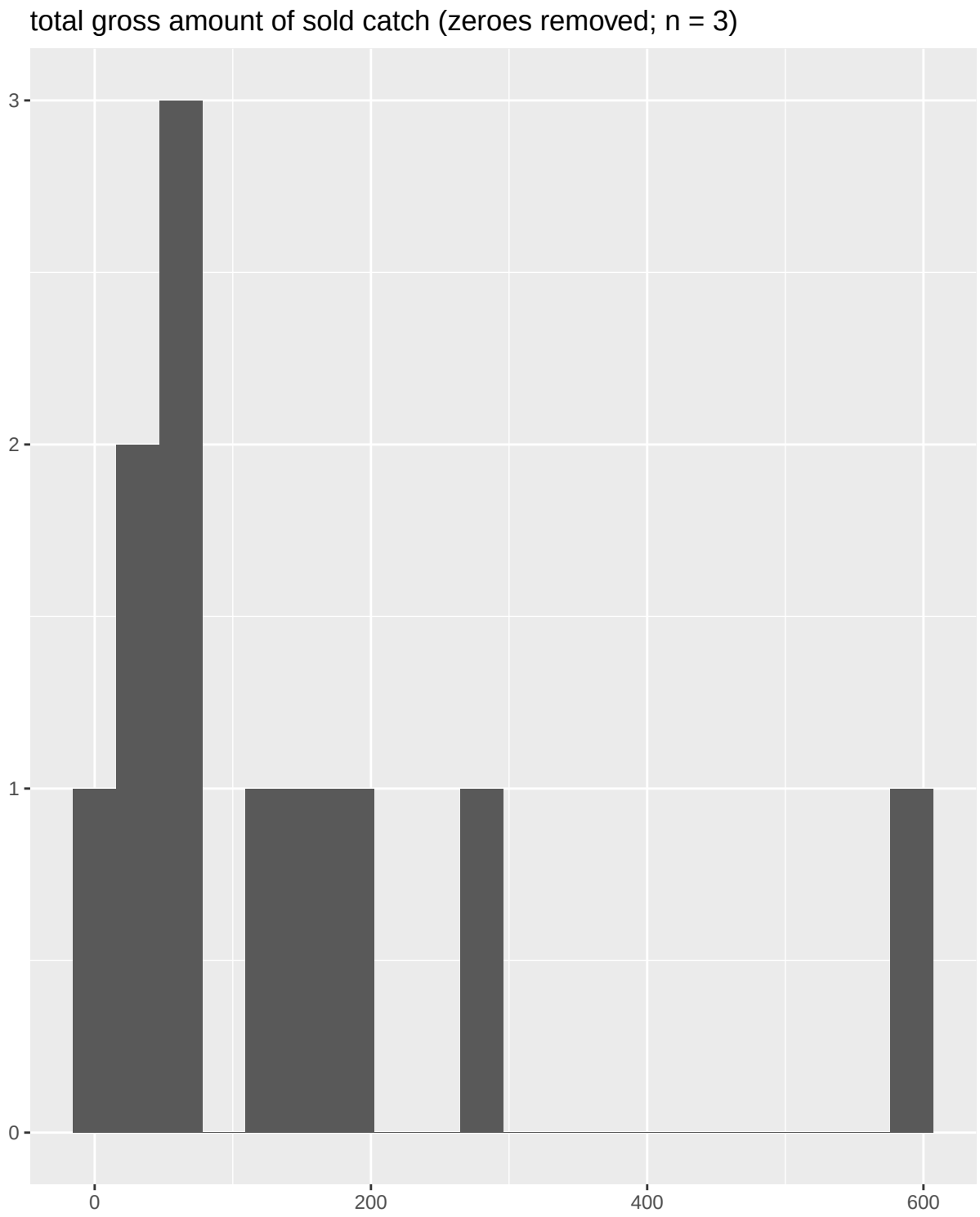
Catch: Land crab (mud crab, coconut crab, etc.)



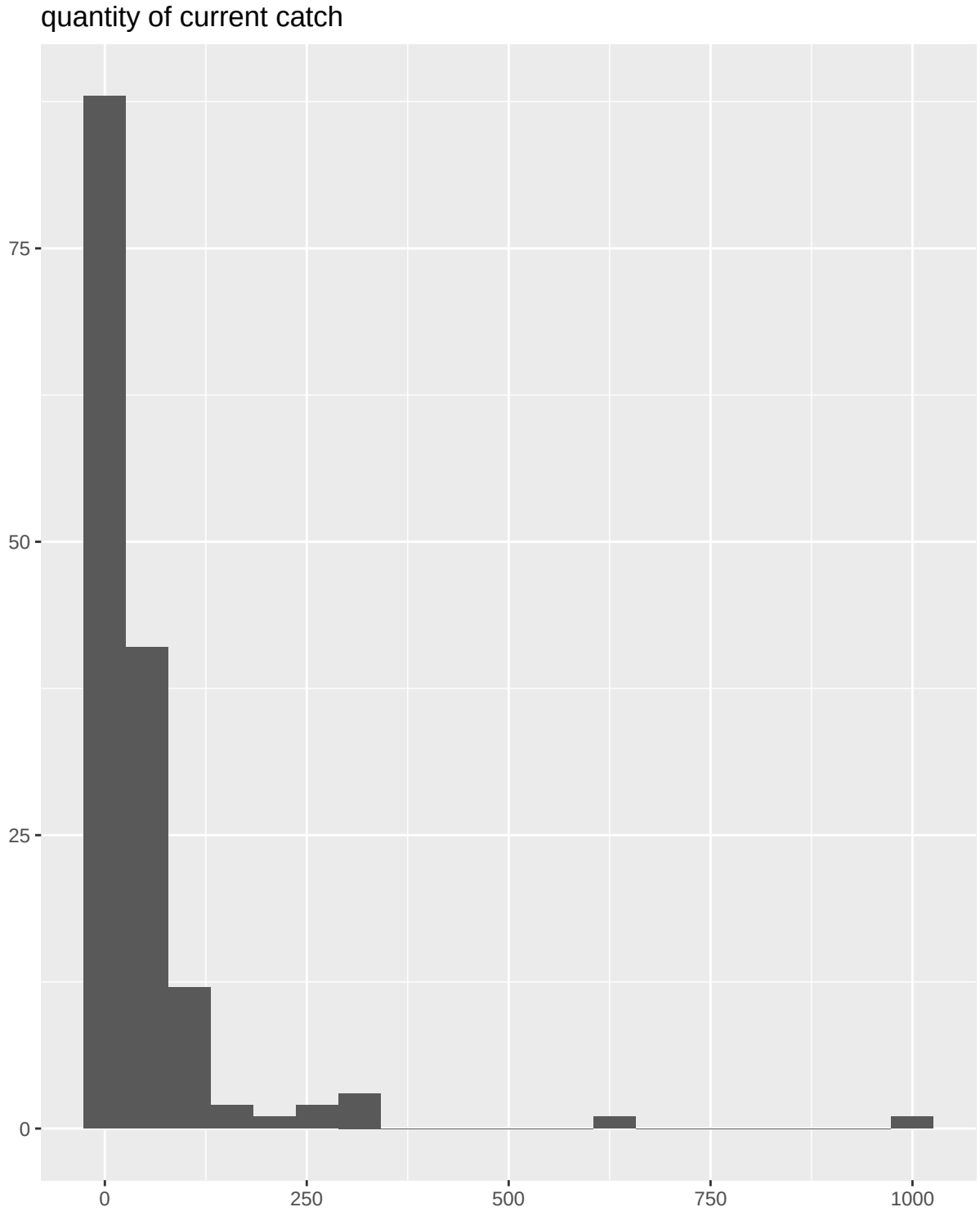
Catch: Other catch(note)

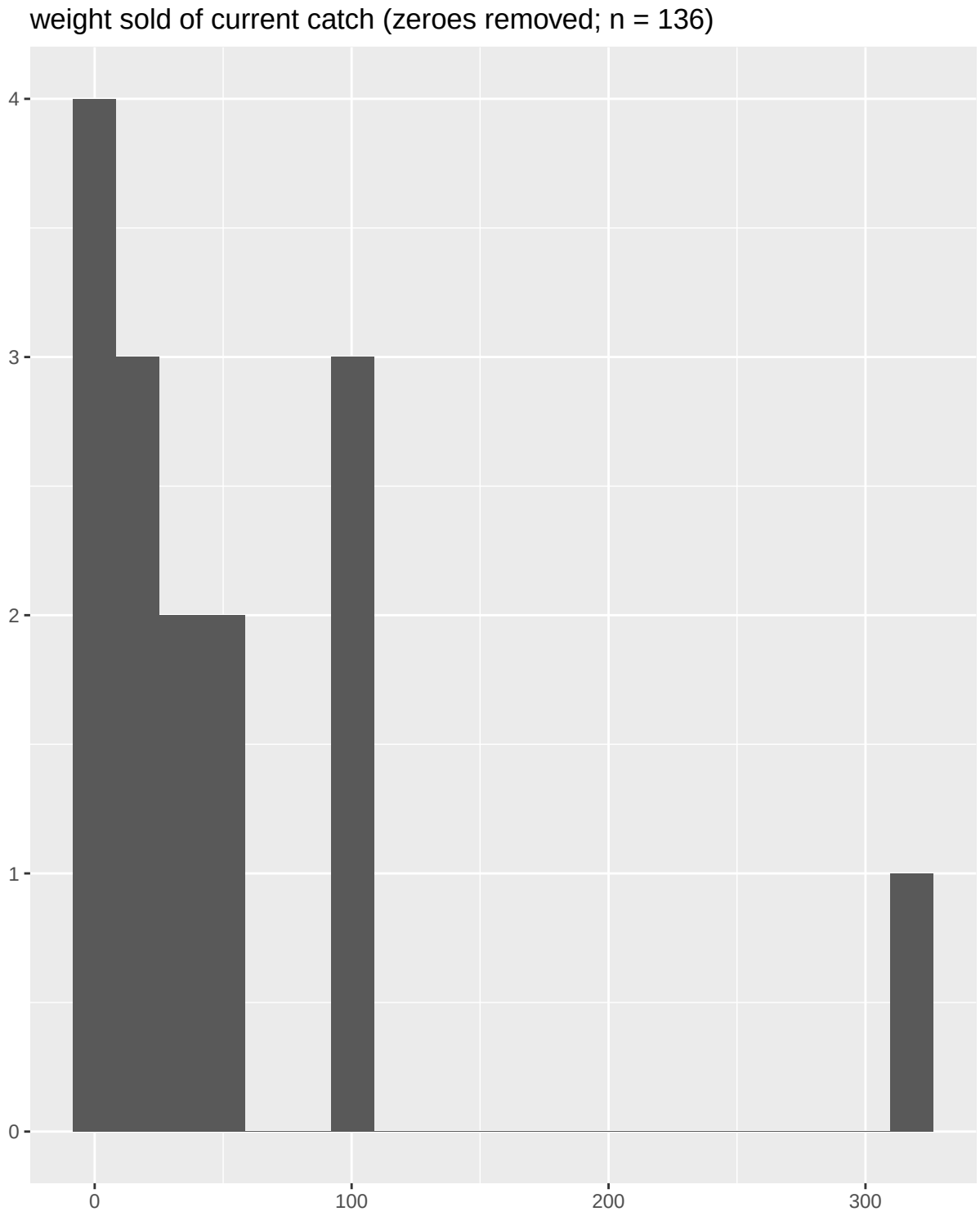


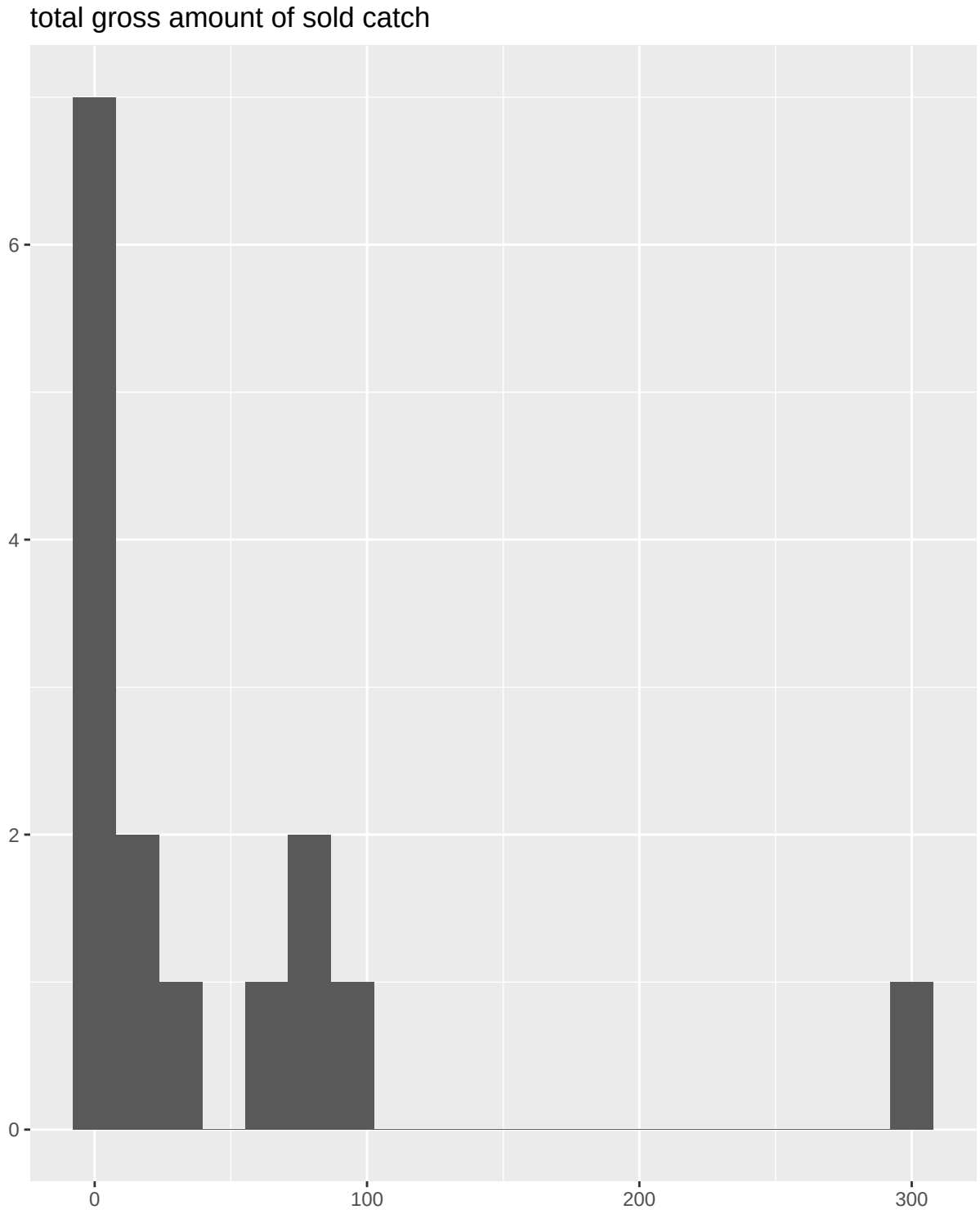

weight sold of current catch (zeroes removed; n = 121)
4
3
2
1
0
0
100
200


total gross amount of sold catch (zeroes removed; n = 3)
3
2
1
0
0
200
400
600

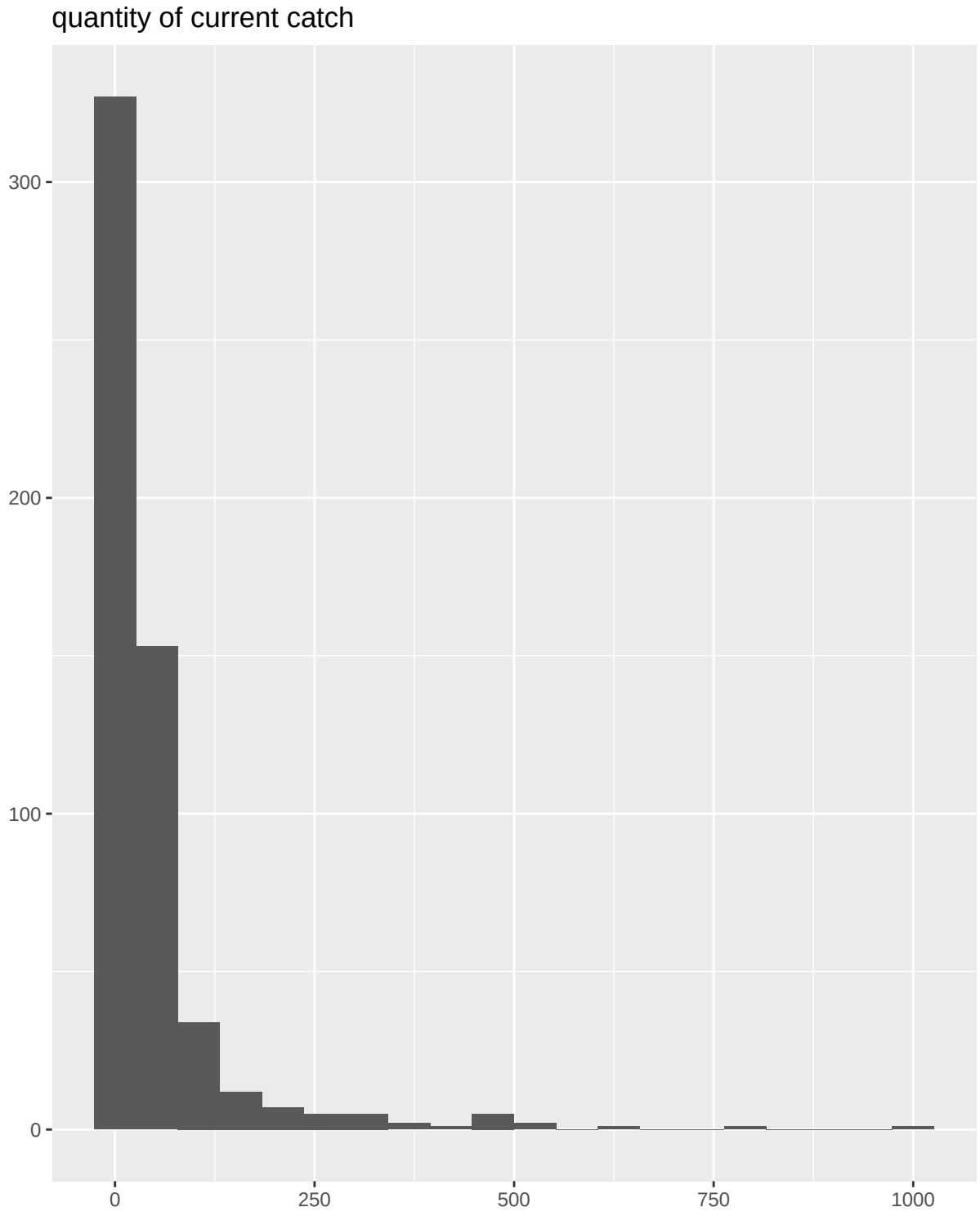
Catch: Herbivorous reef fish (parrotfish, rabbitfish, surgeonfish, etc.)

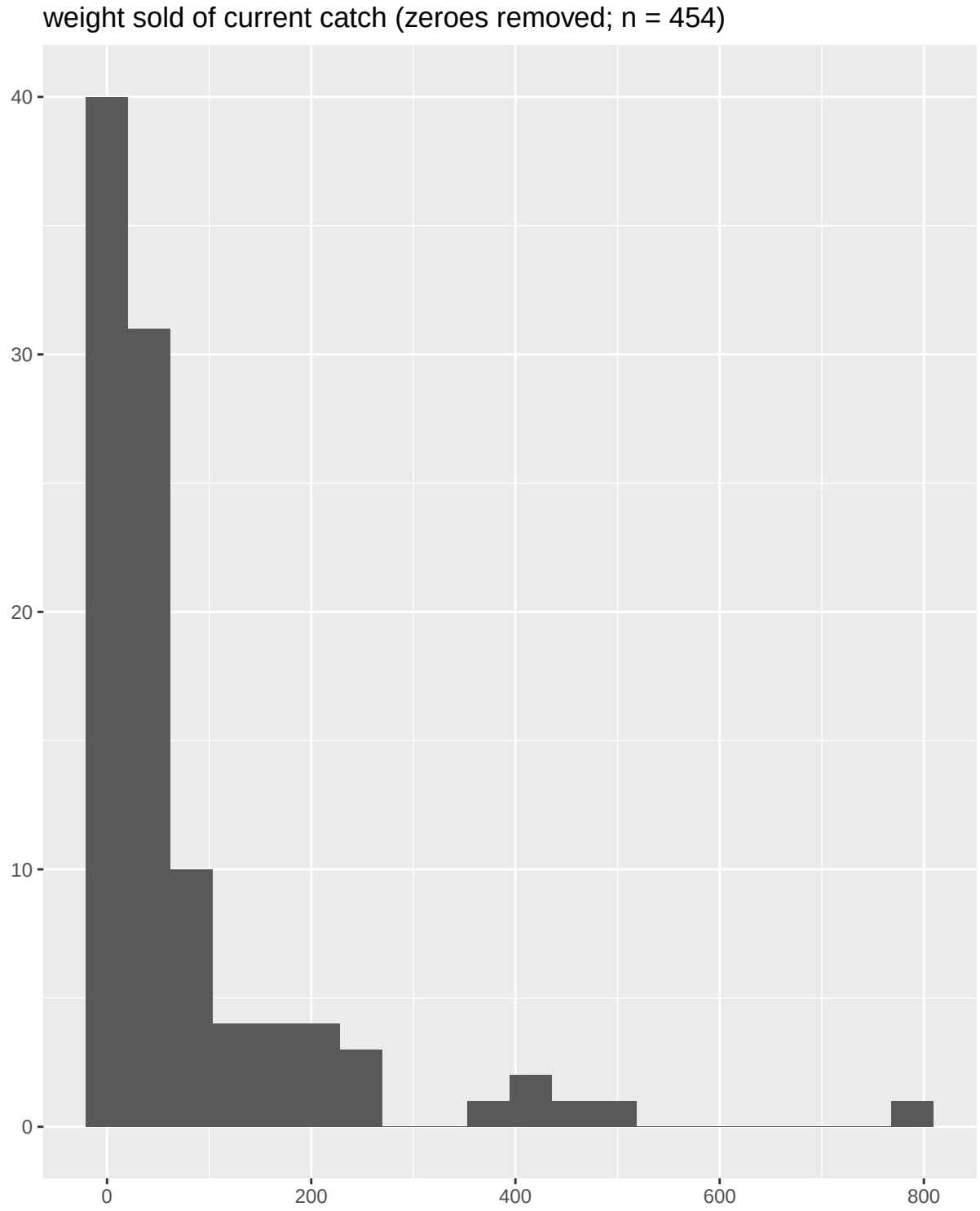


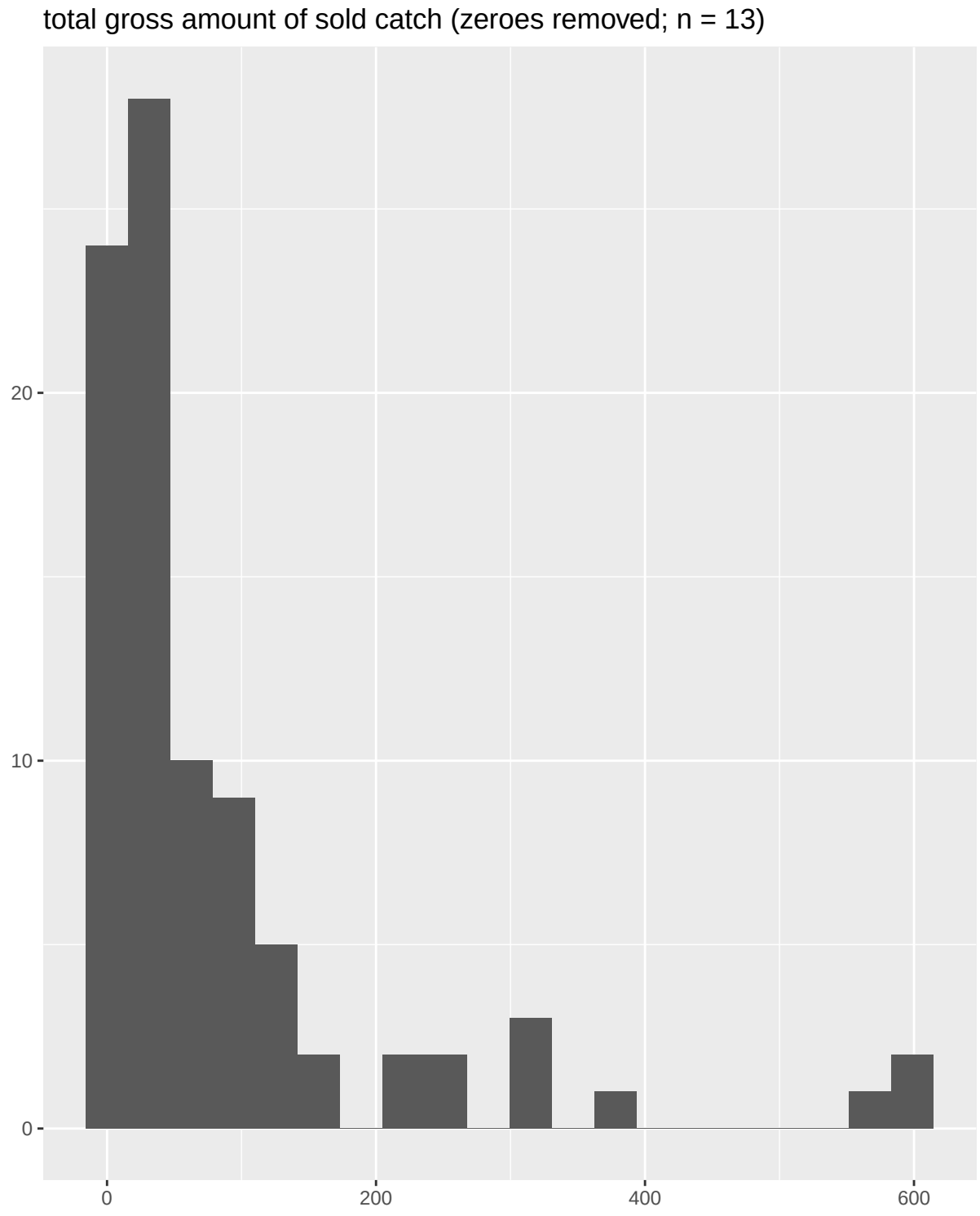

weight sold of current catch (zeroes removed; n = 136)
4
3
2
1
0
0
100
200
300


total gross amount of sold catch
6
4
2
0
0
100
200
300

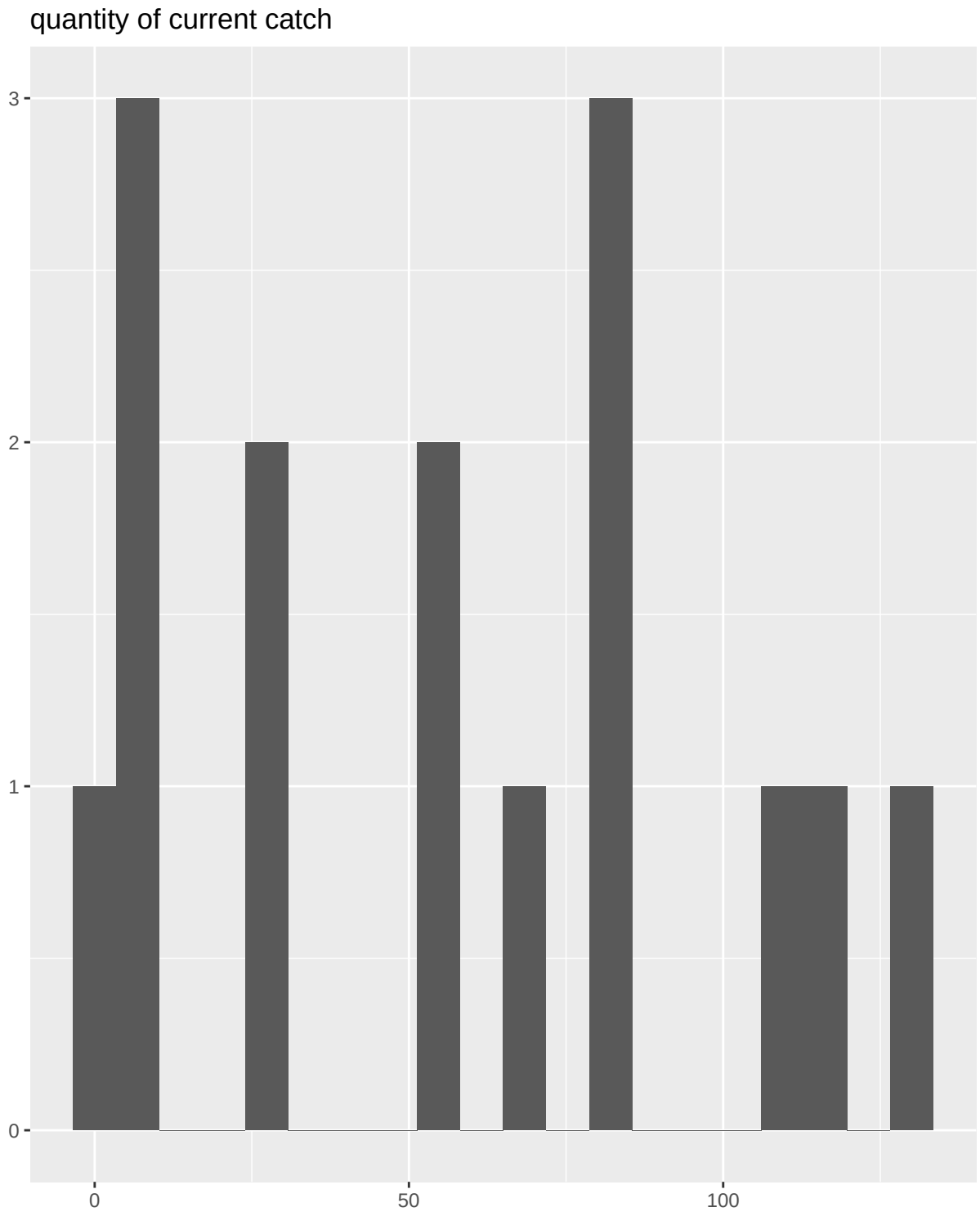
Catch: Lagoon and sand flat fish (goatfish, silver biddy, mullet, bonefish, milkfish etc)

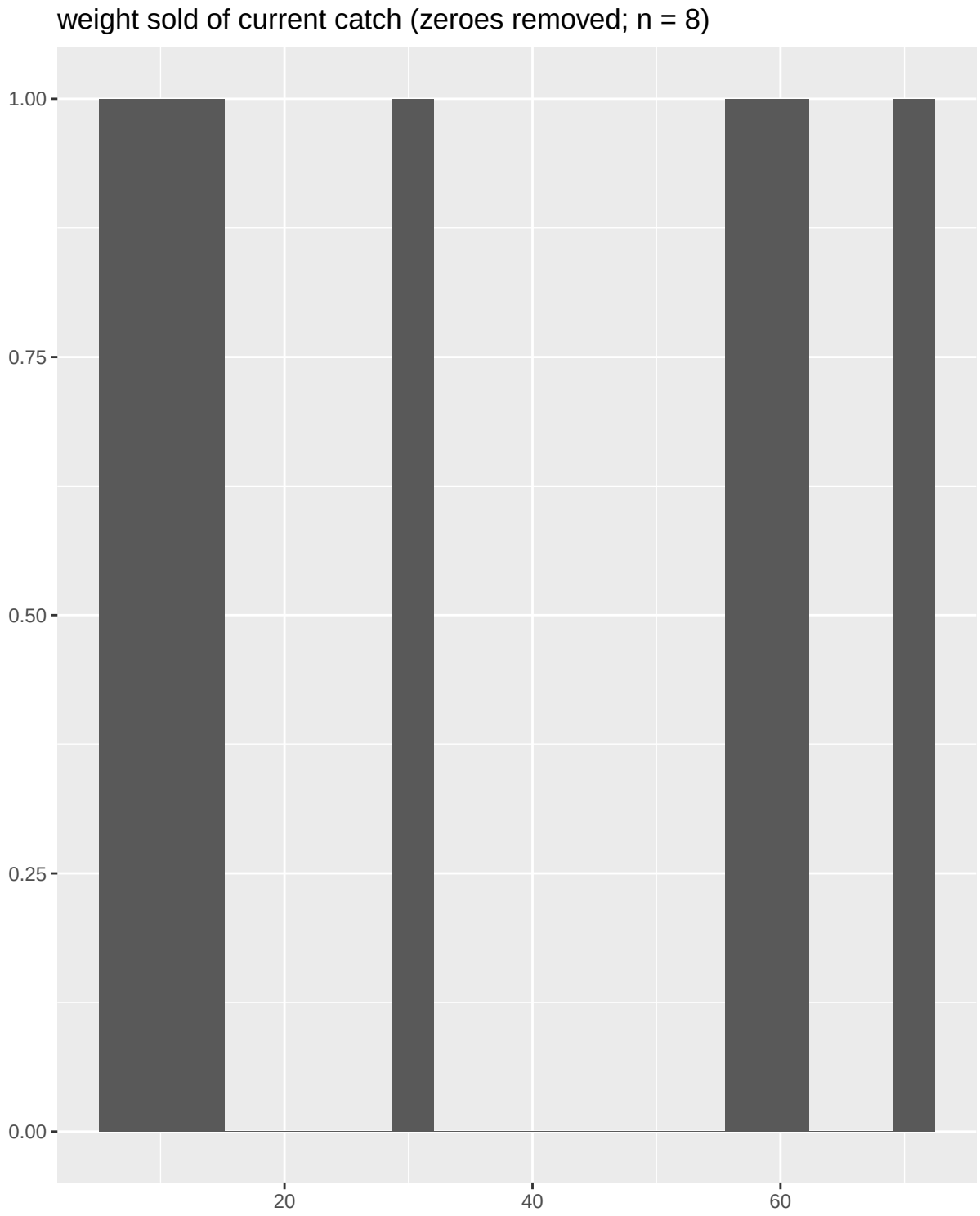


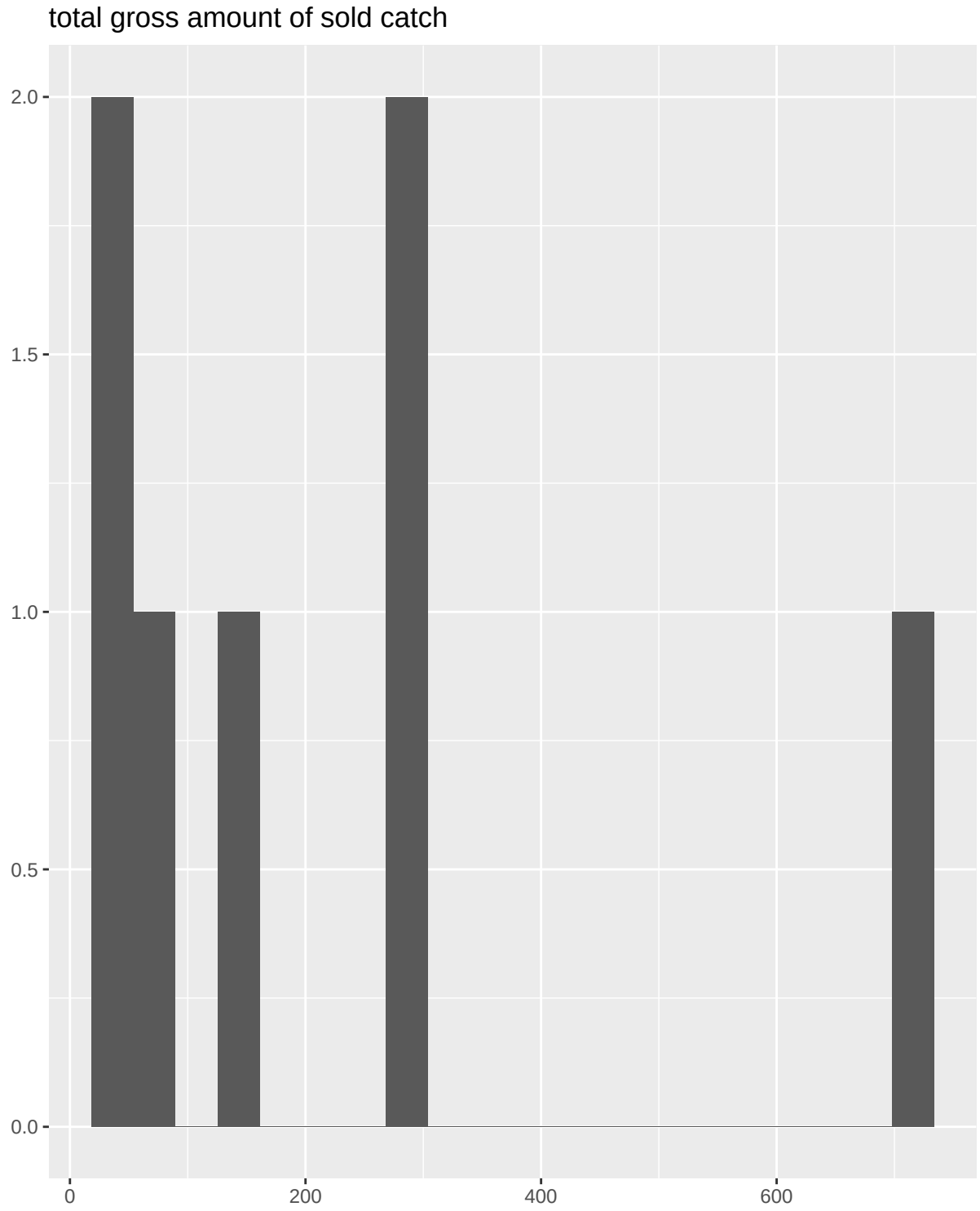

weight sold of current catch (zeroes removed; n = 454)
40
30
20
10
0
0
200
400
600
800


total gross amount of sold catch (zeroes removed; n = 13)
20
10
0
0
200
400
600

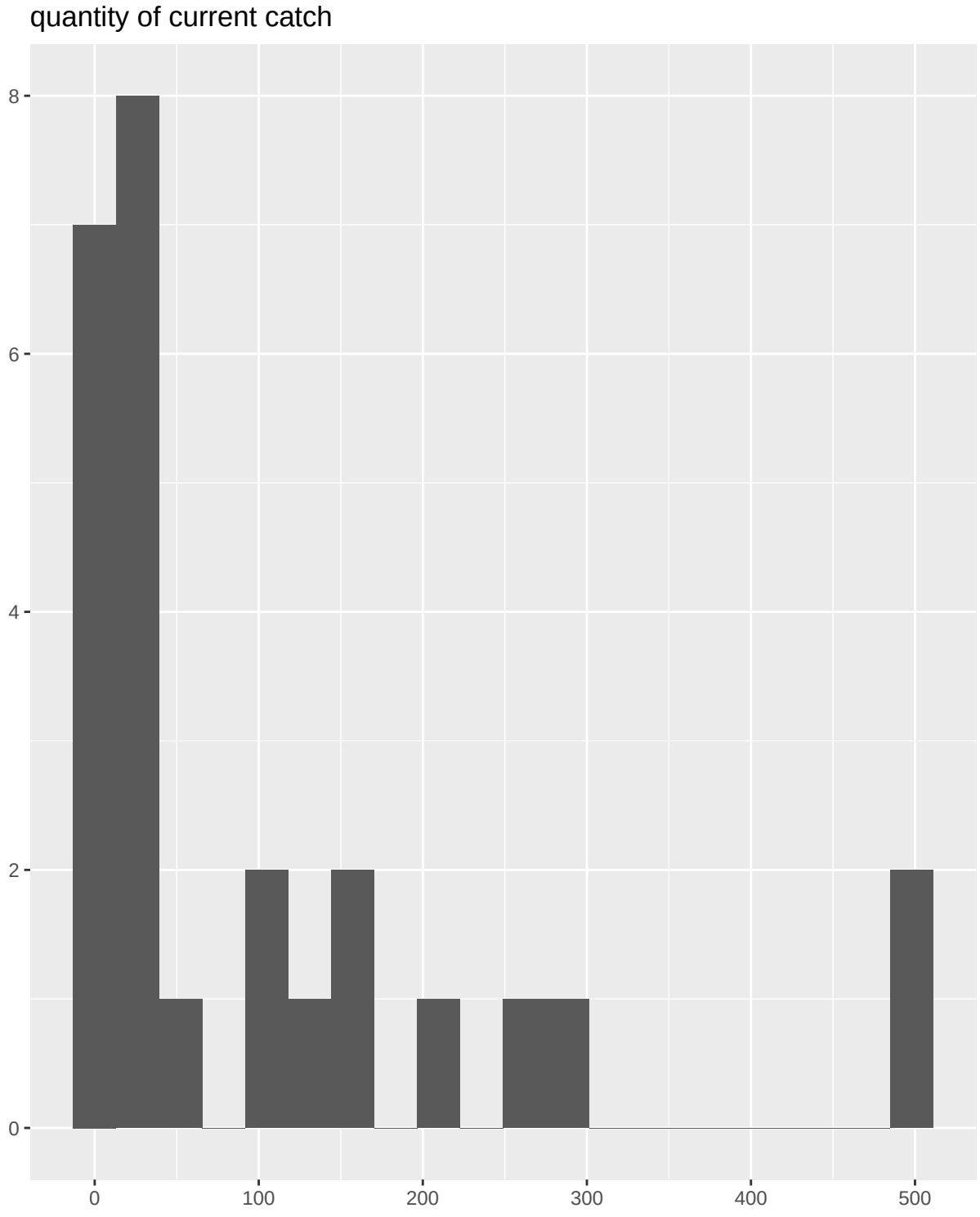
Catch: Lobsters

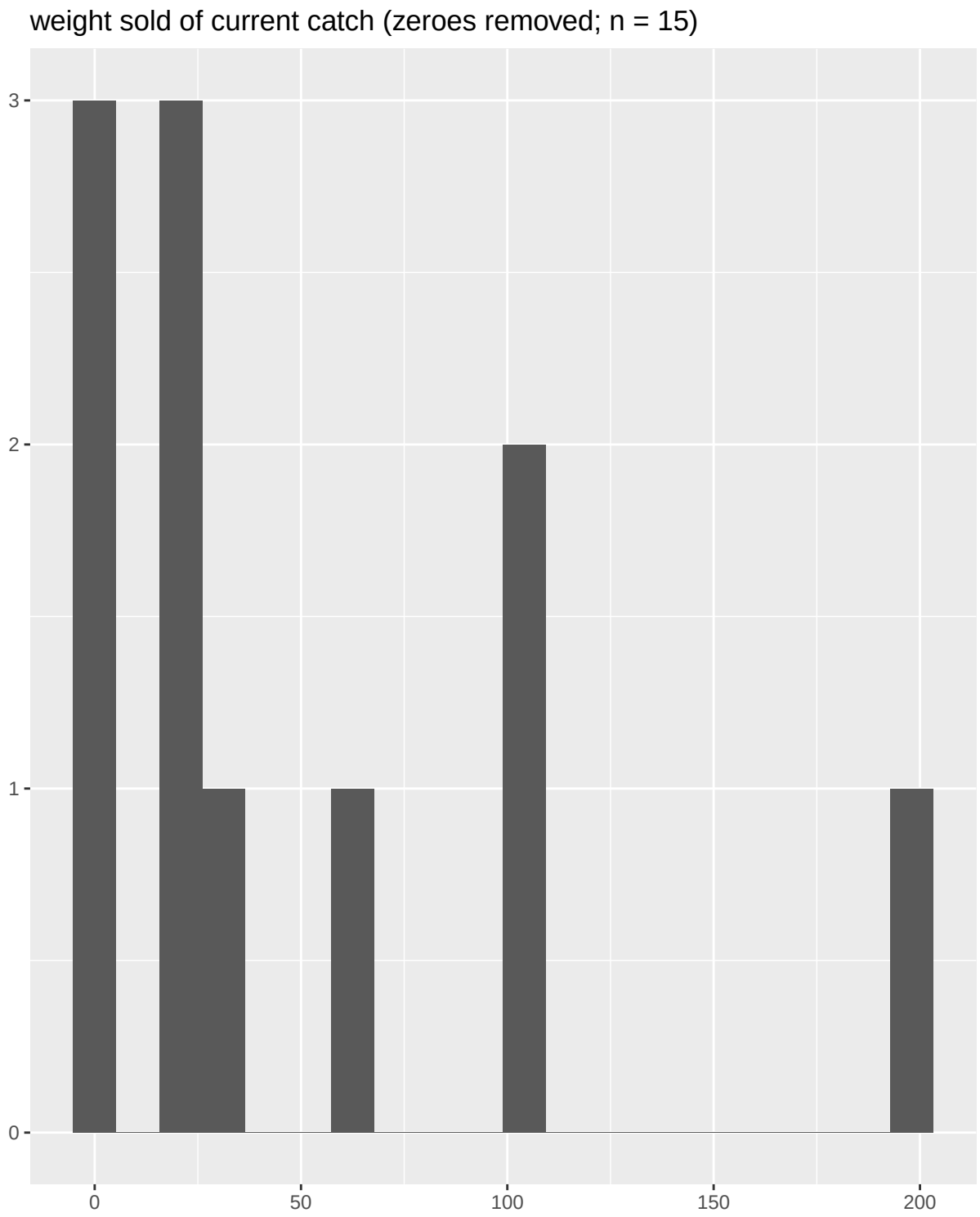


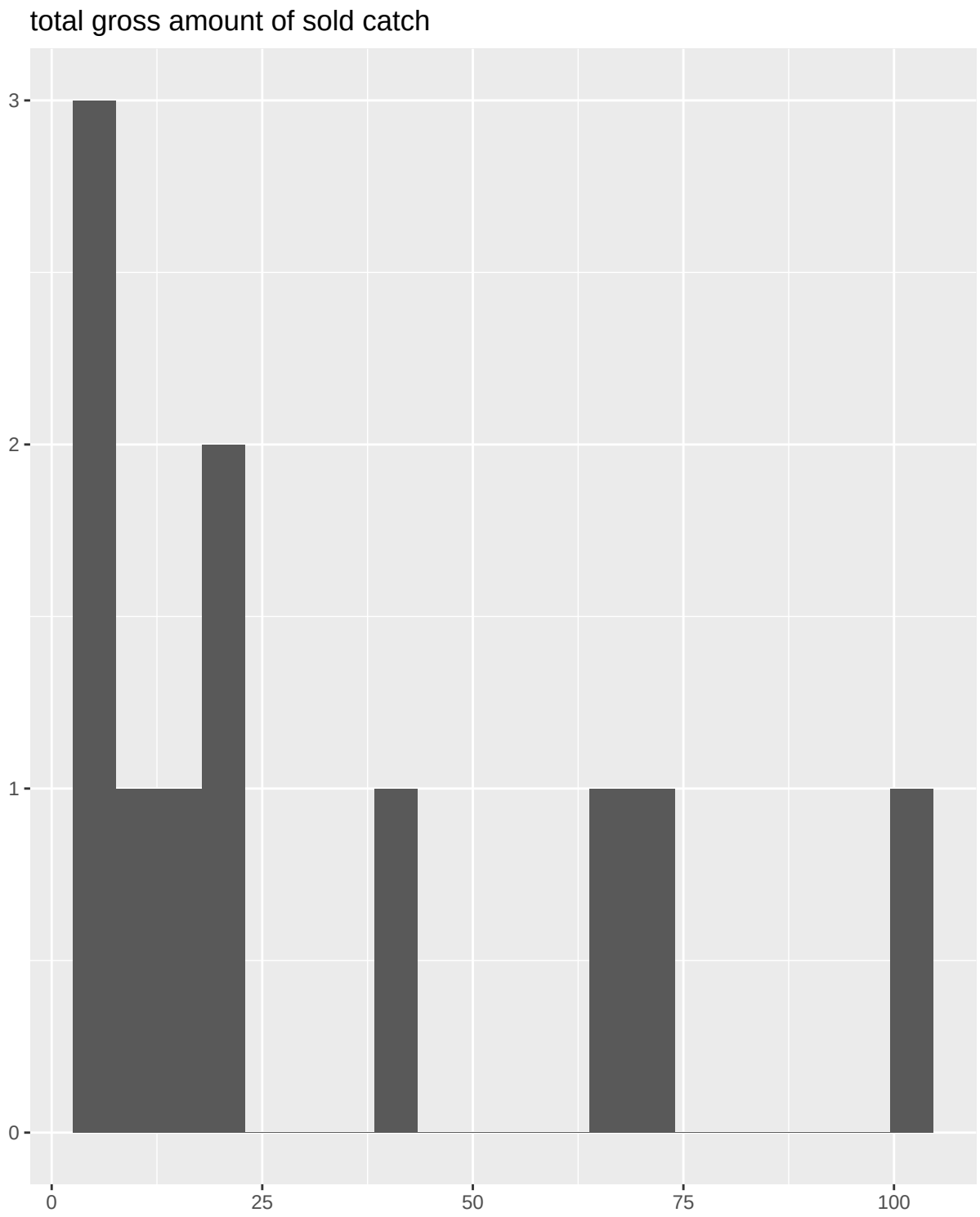

weight sold of current catch (zeroes removed; n = 8)
1.00
0.75
0.50
0.25
0.00
20
40
60


total gross amount of sold catch
2.0
1.5
1.0
0.5
0.0
0
200
400
600

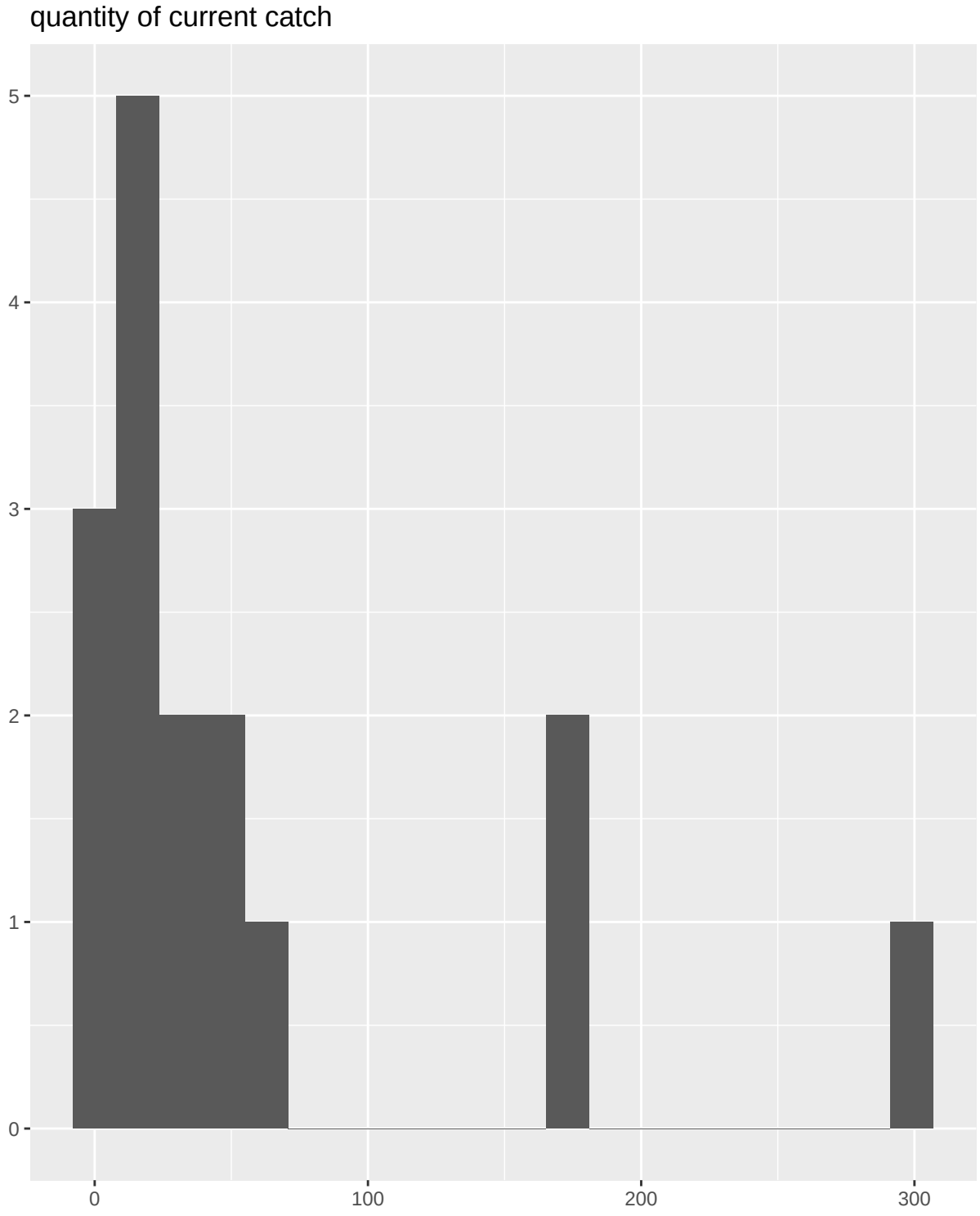
Catch: Sea worm / peanut worm (ipo worm)

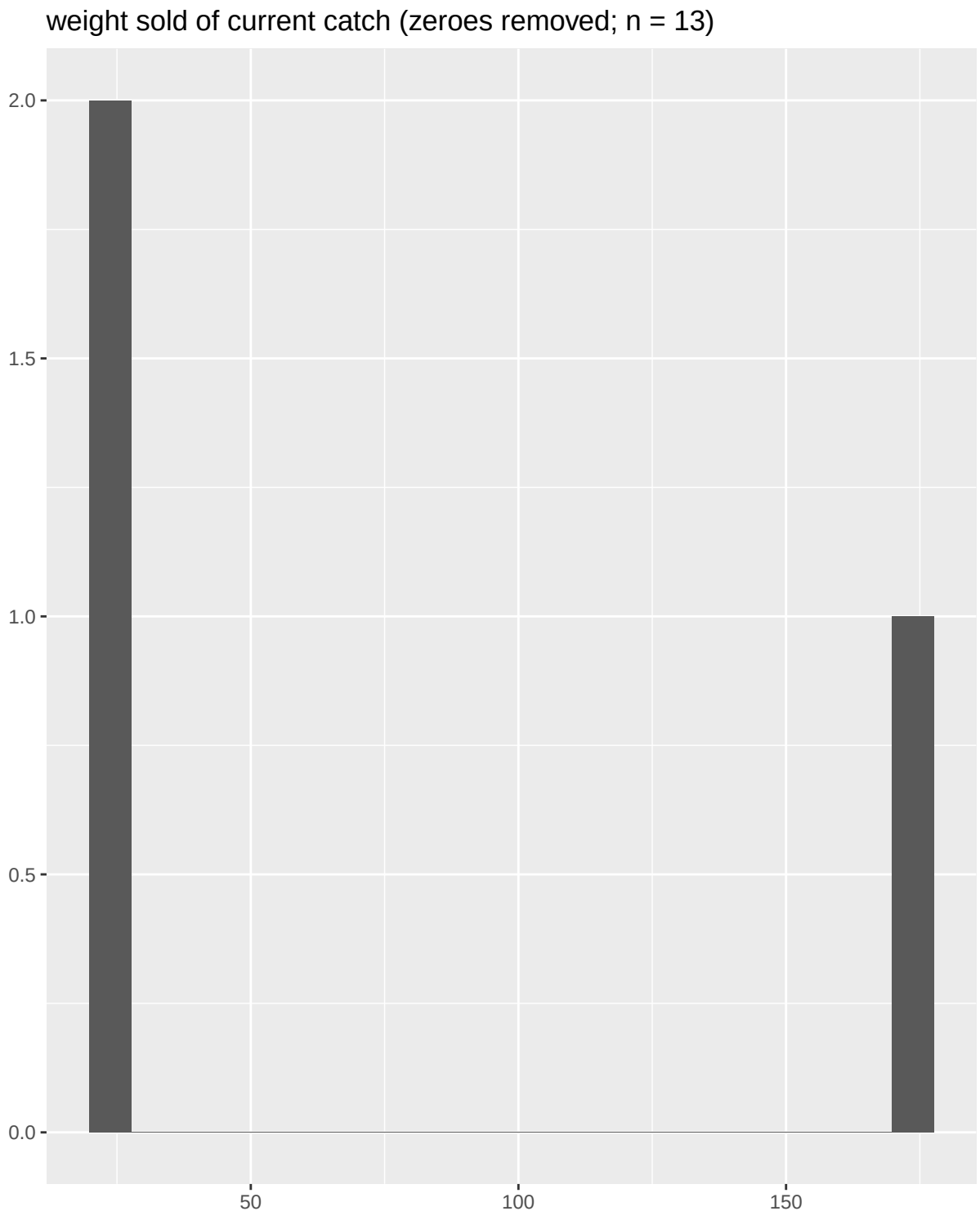


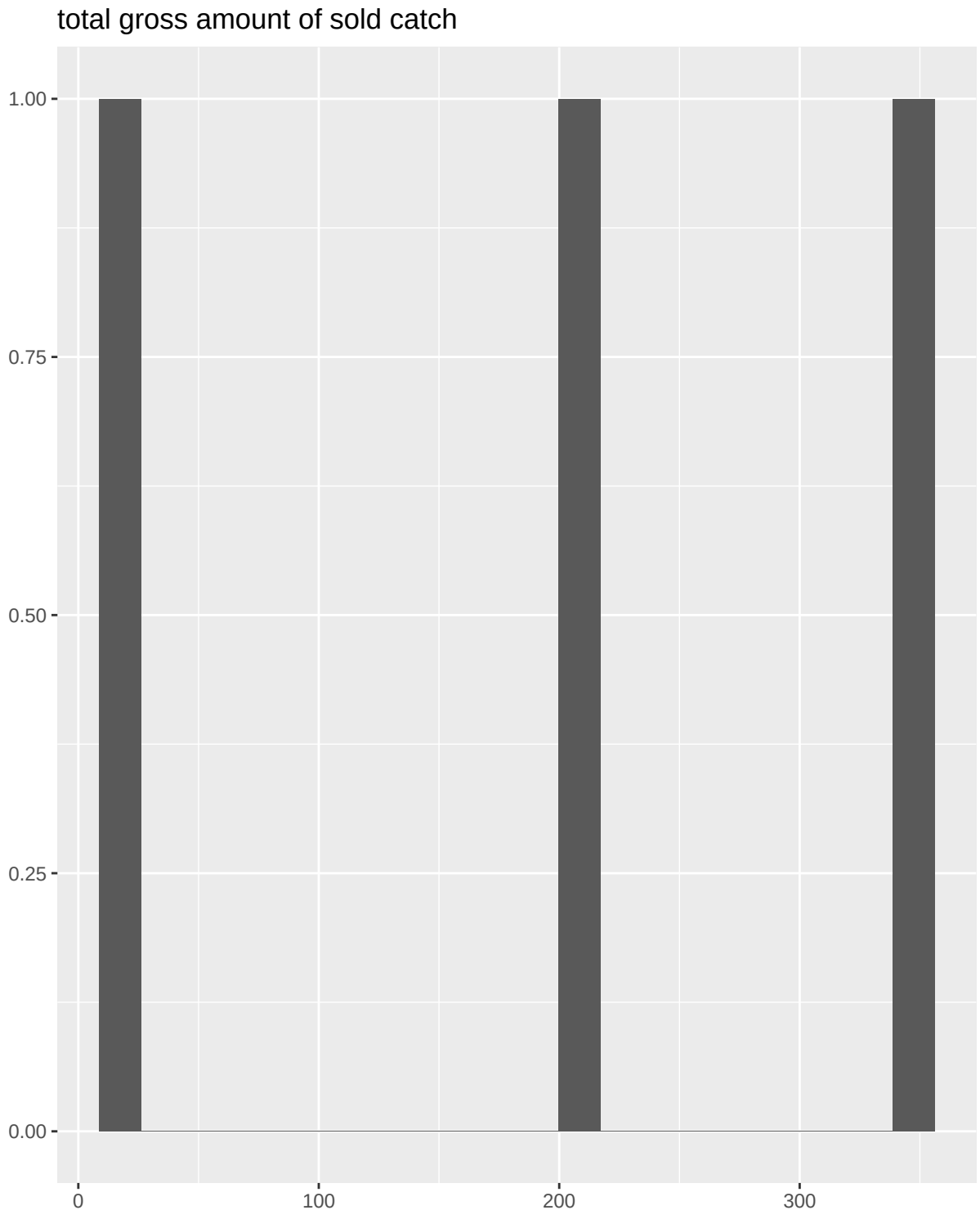

weight sold of current catch (zeroes removed; n = 15)
3
2
1
0
0
50
100
150
200


total gross amount of sold catch
3
2
1
0
0
25
50
75
100

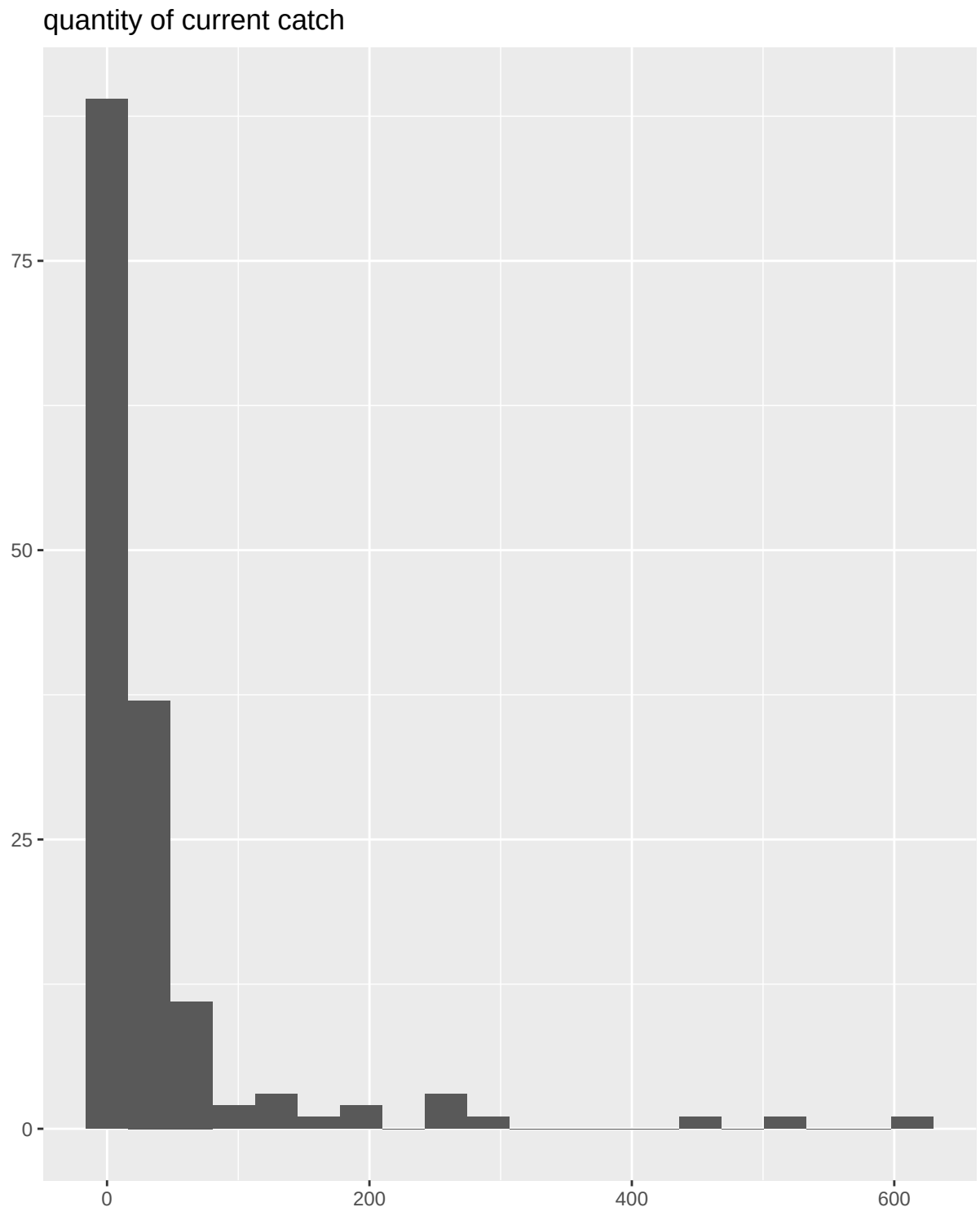
Catch: Other non-finfish (note) - other bivalves, ocean crabs, octopus, etc

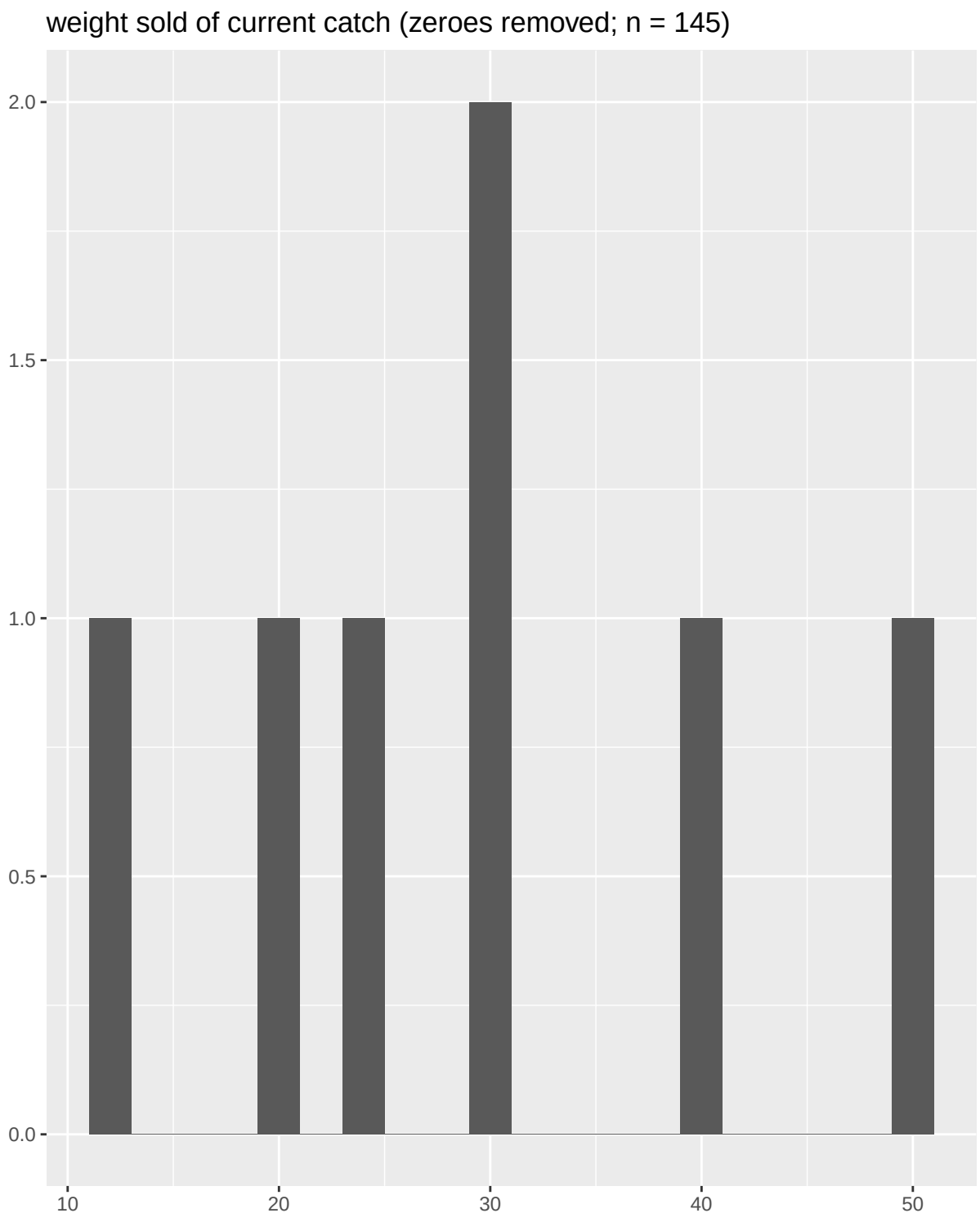


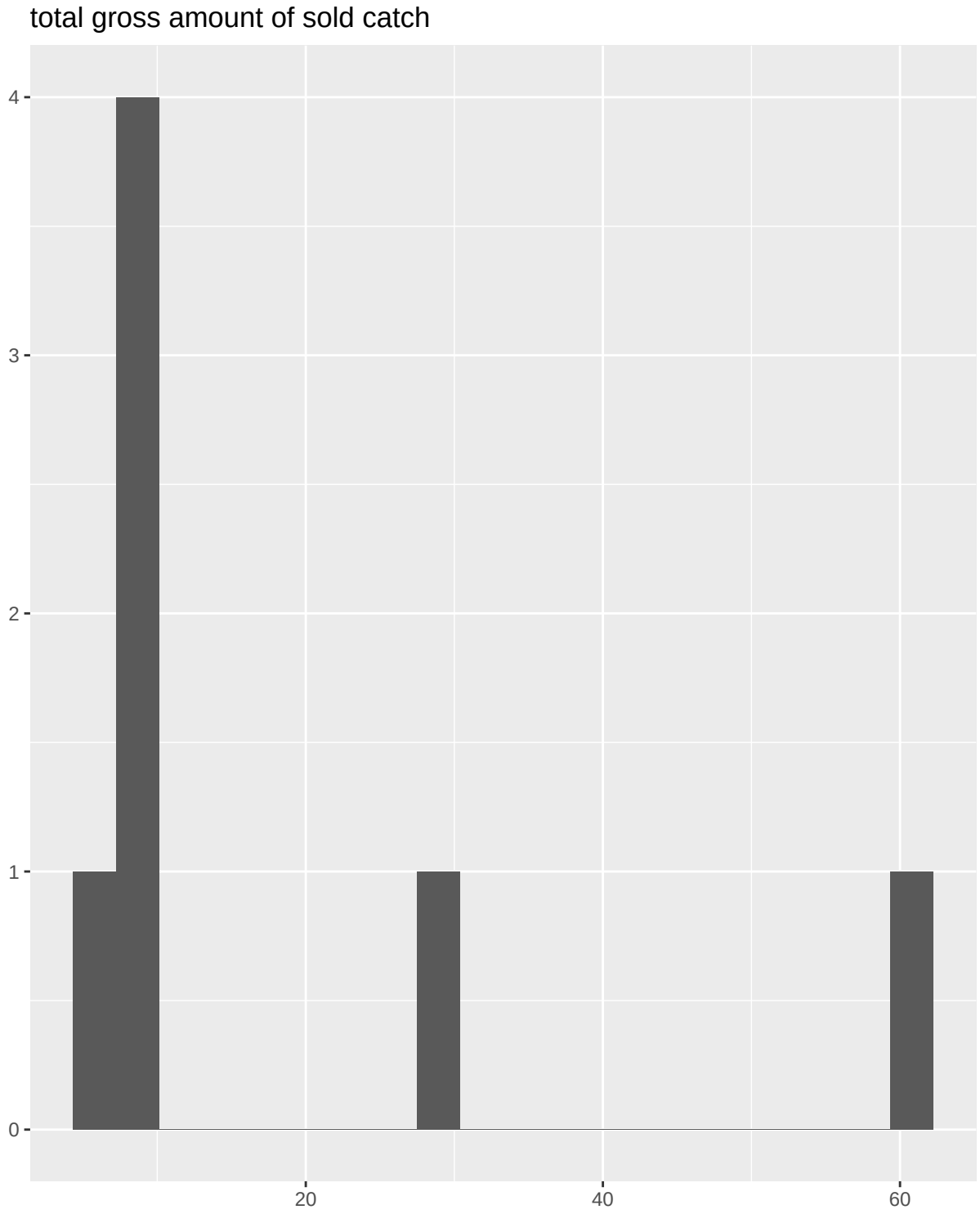

weight sold of current catch (zeroes removed; n = 13)
2.0
1.5
1.0
0.5
0.0
50
100
150


total gross amount of sold catch
1.00
0.75
0.50
0.25
0.00
0
100
200
300

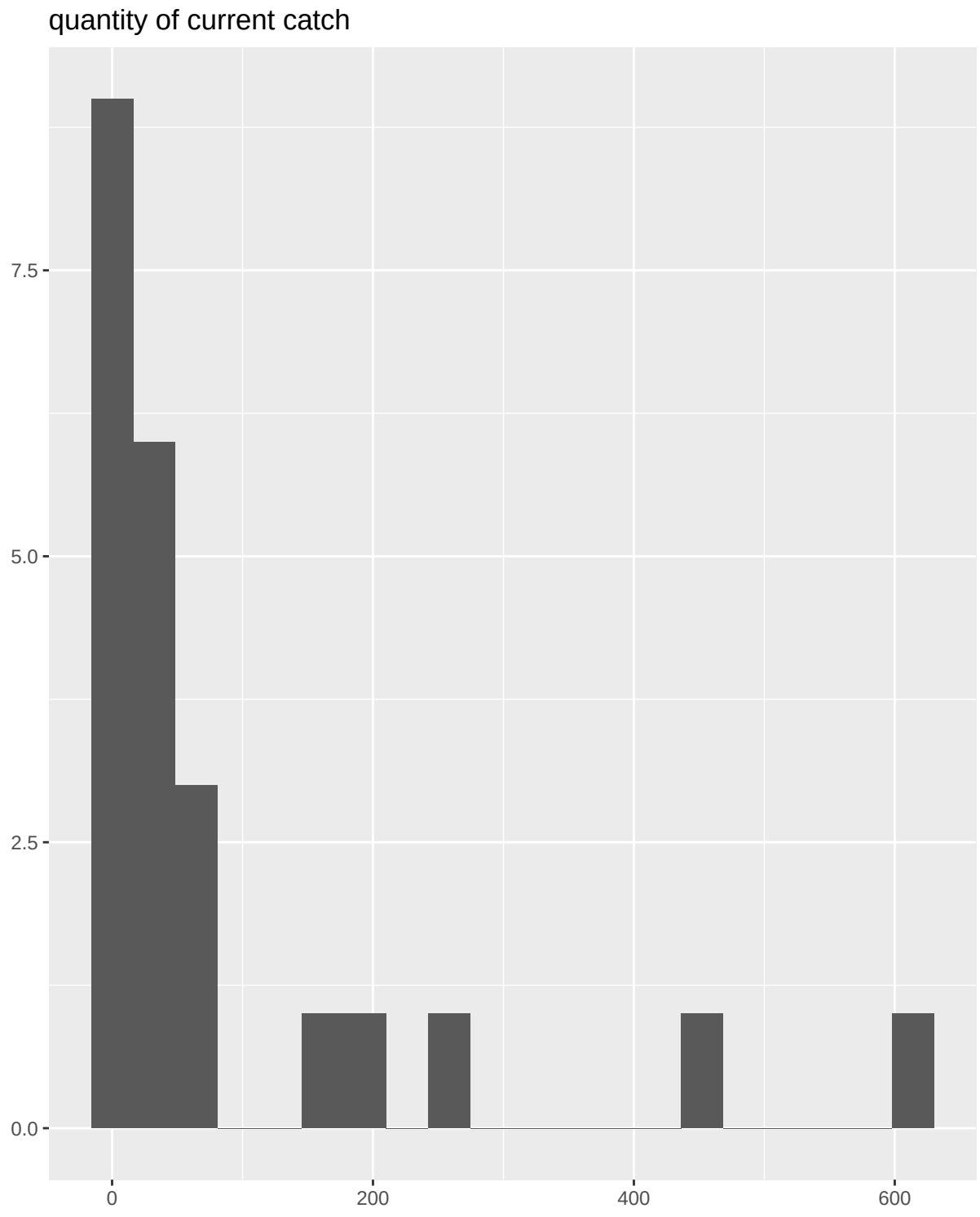
Catch: Cockles (arc shell, te bun)



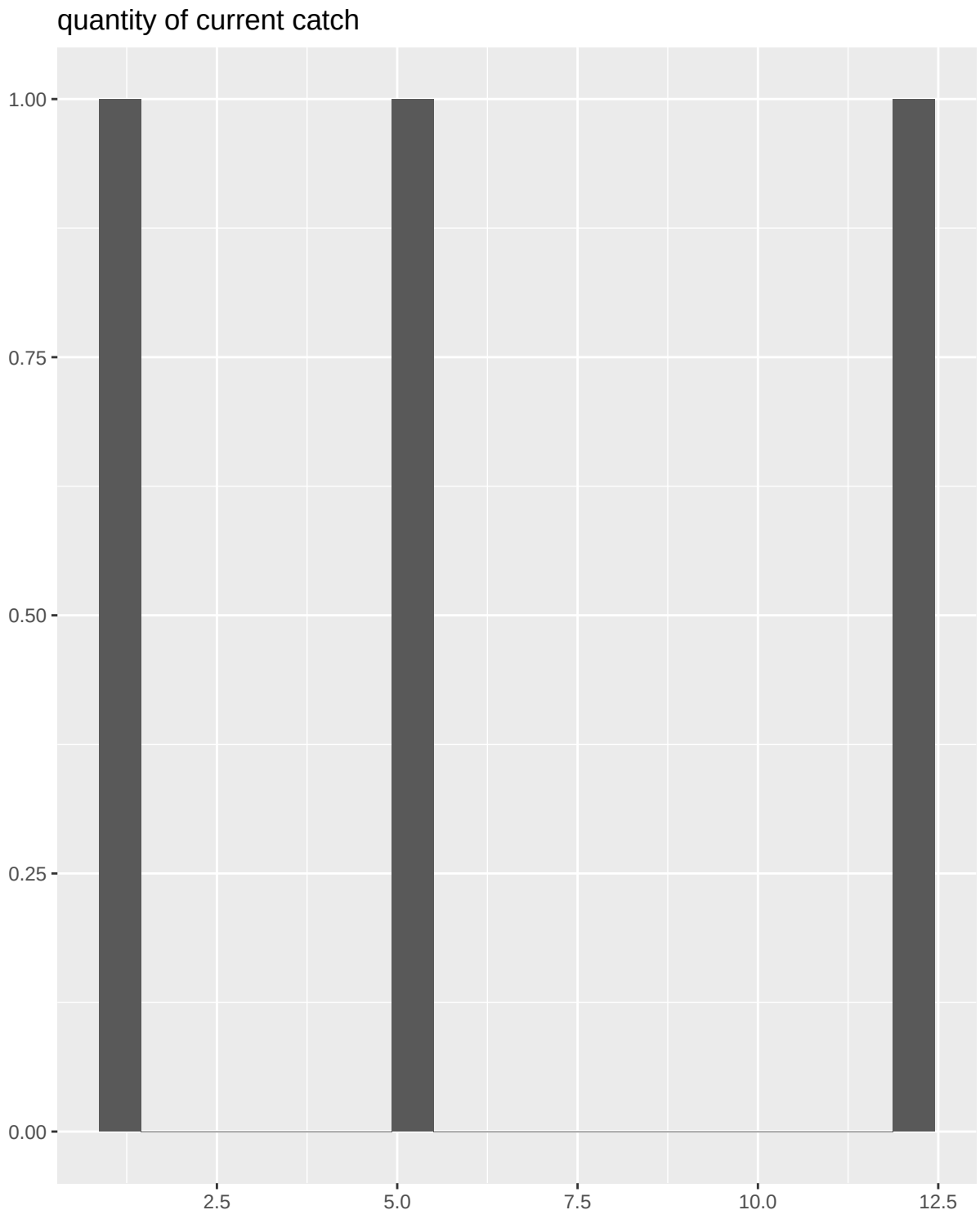

weight sold of current catch (zeroes removed; n = 145)
2.0
1.5
1.0
0.5
0.0
10
20
30
40
50


total gross amount of sold catch
4
3
2
1
0
20
40
60

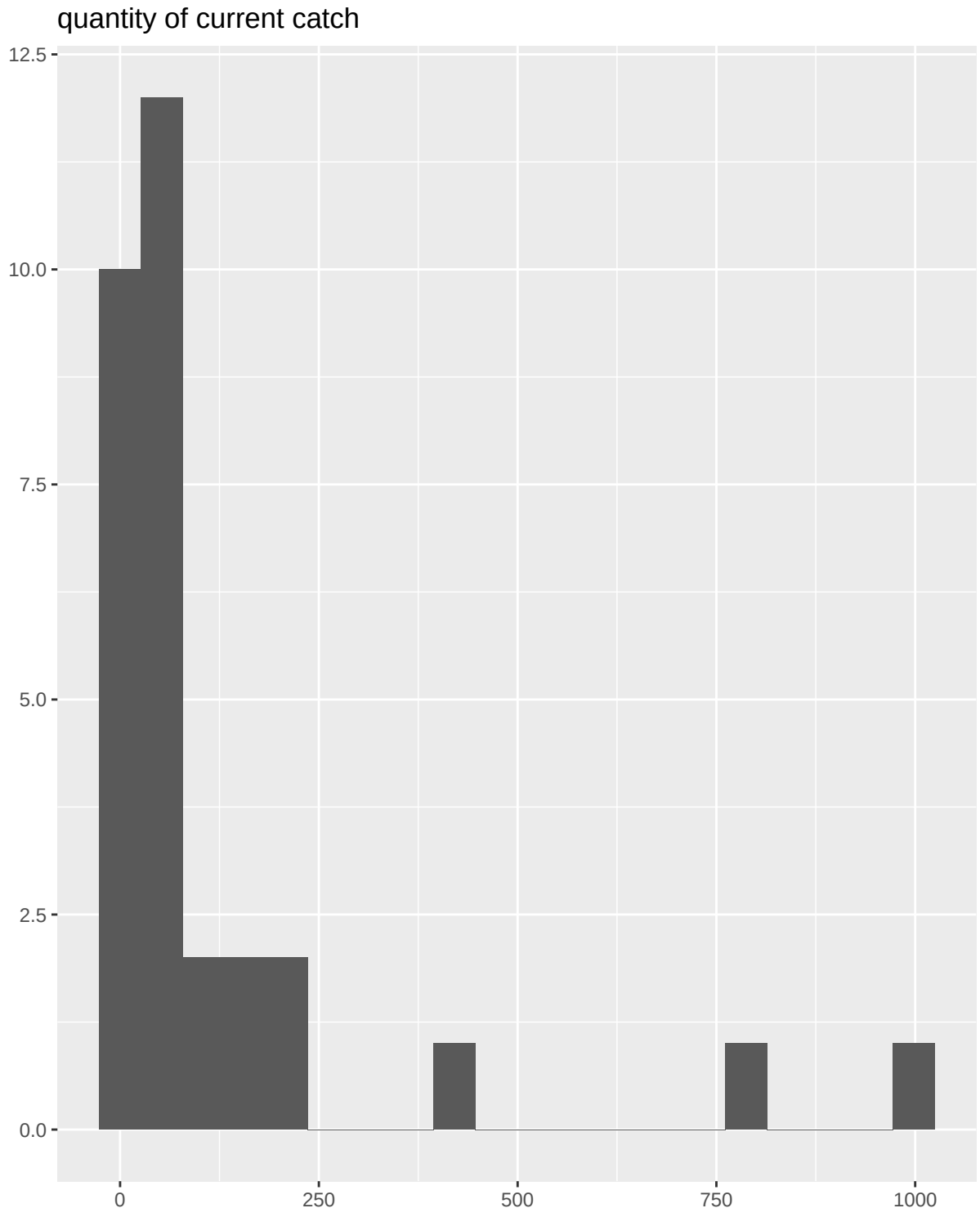
Catch: Sea snails (trochus, etc)

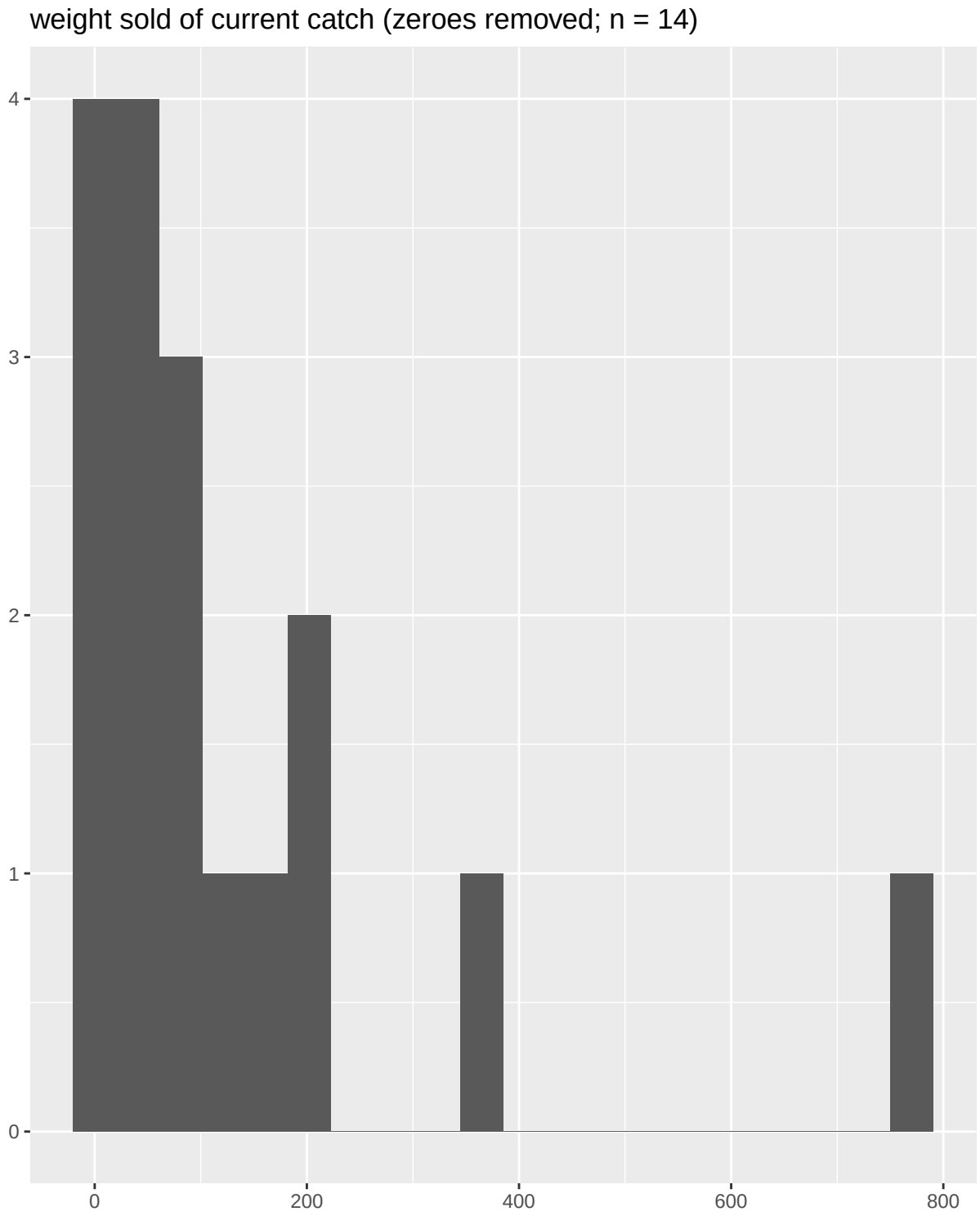


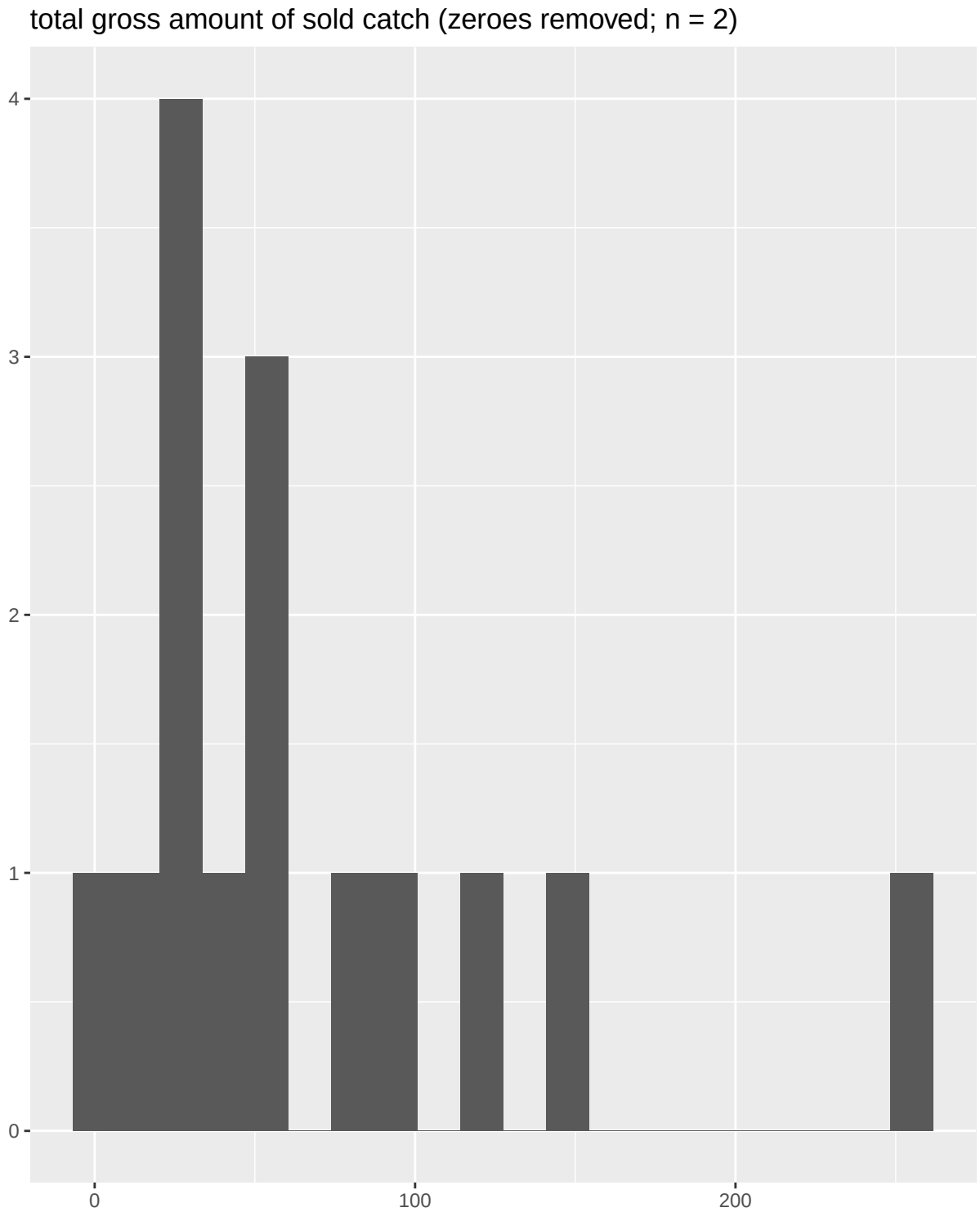
Catch: Sea noodles / sea grapes



Catch: Other fish (flying fish, etc.) (note)

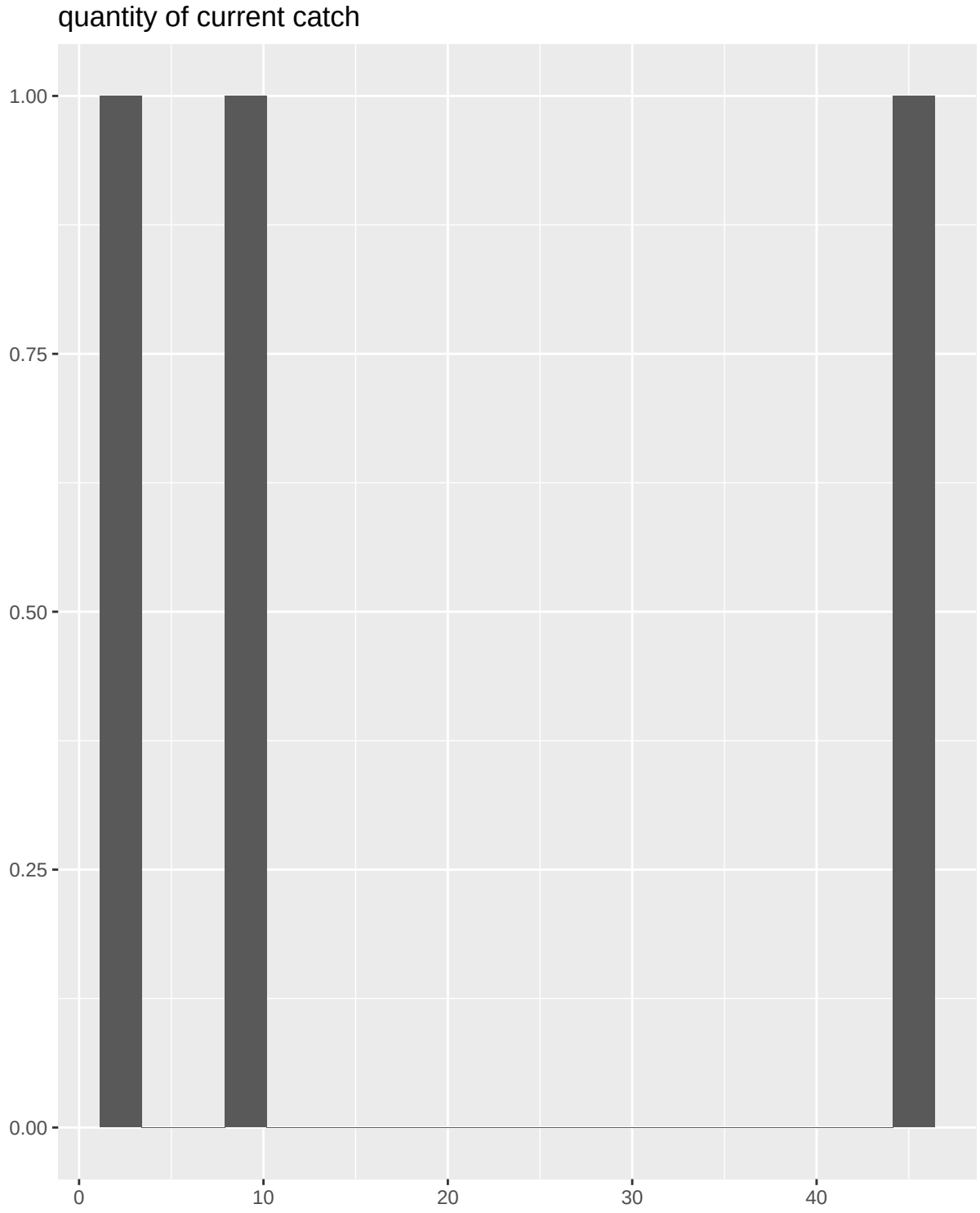



weight sold of current catch (zeroes removed; n = 14)
4
3
2
1
0
0
200
400
600
800

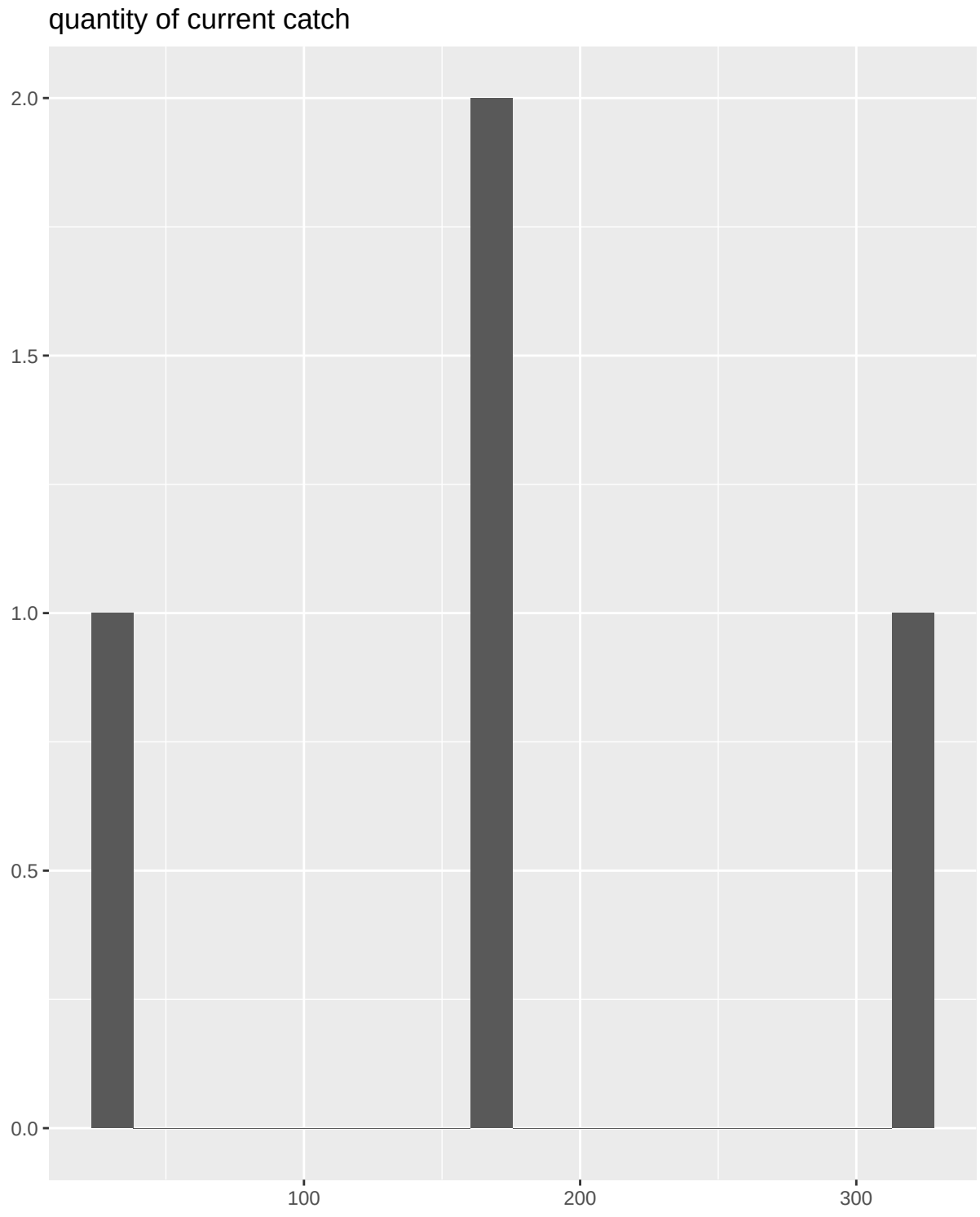

total gross amount of sold catch (zeroes removed; n = 2)
4
3
2
1
0
0
100
200

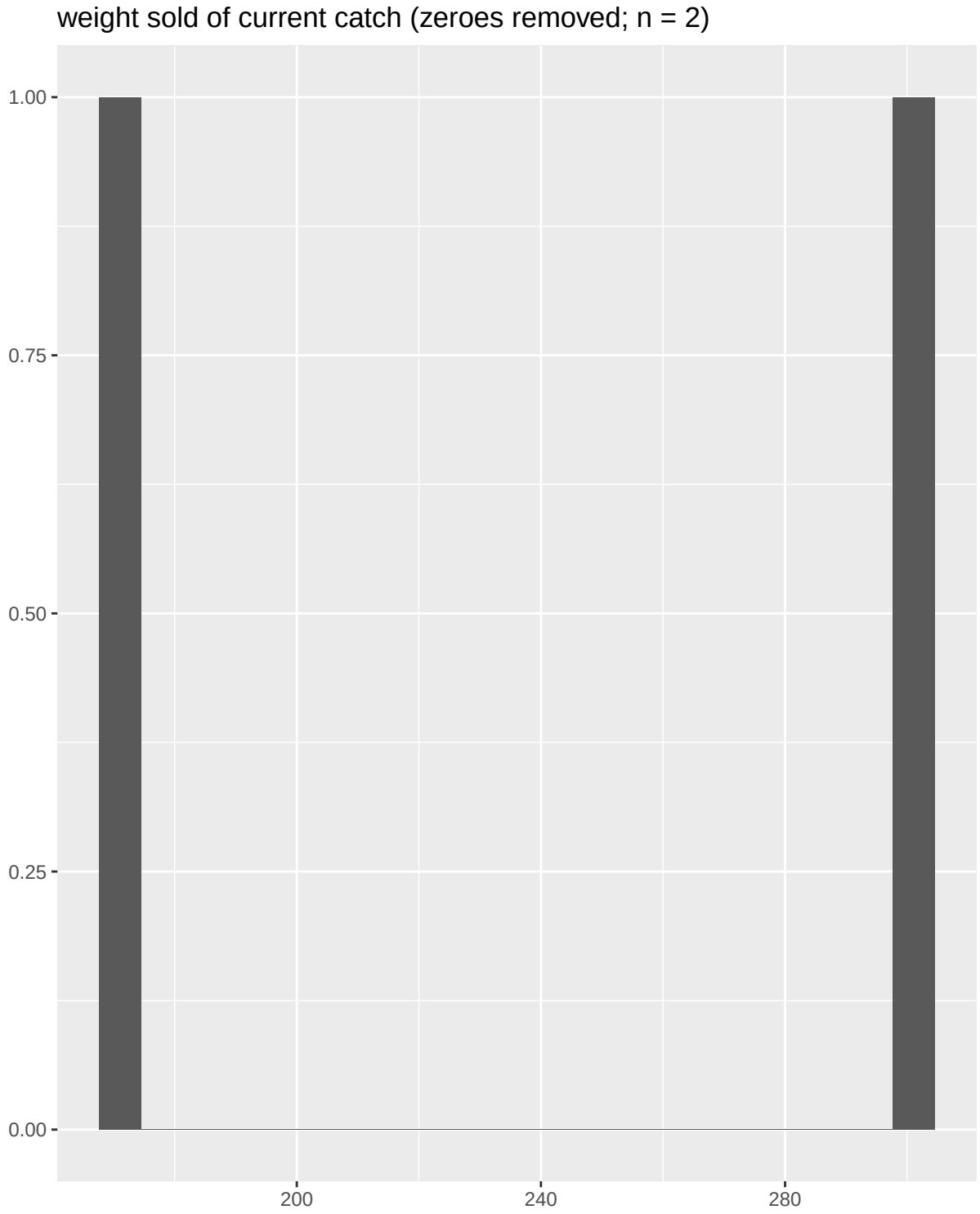
***Catch: Sharks*: No data**

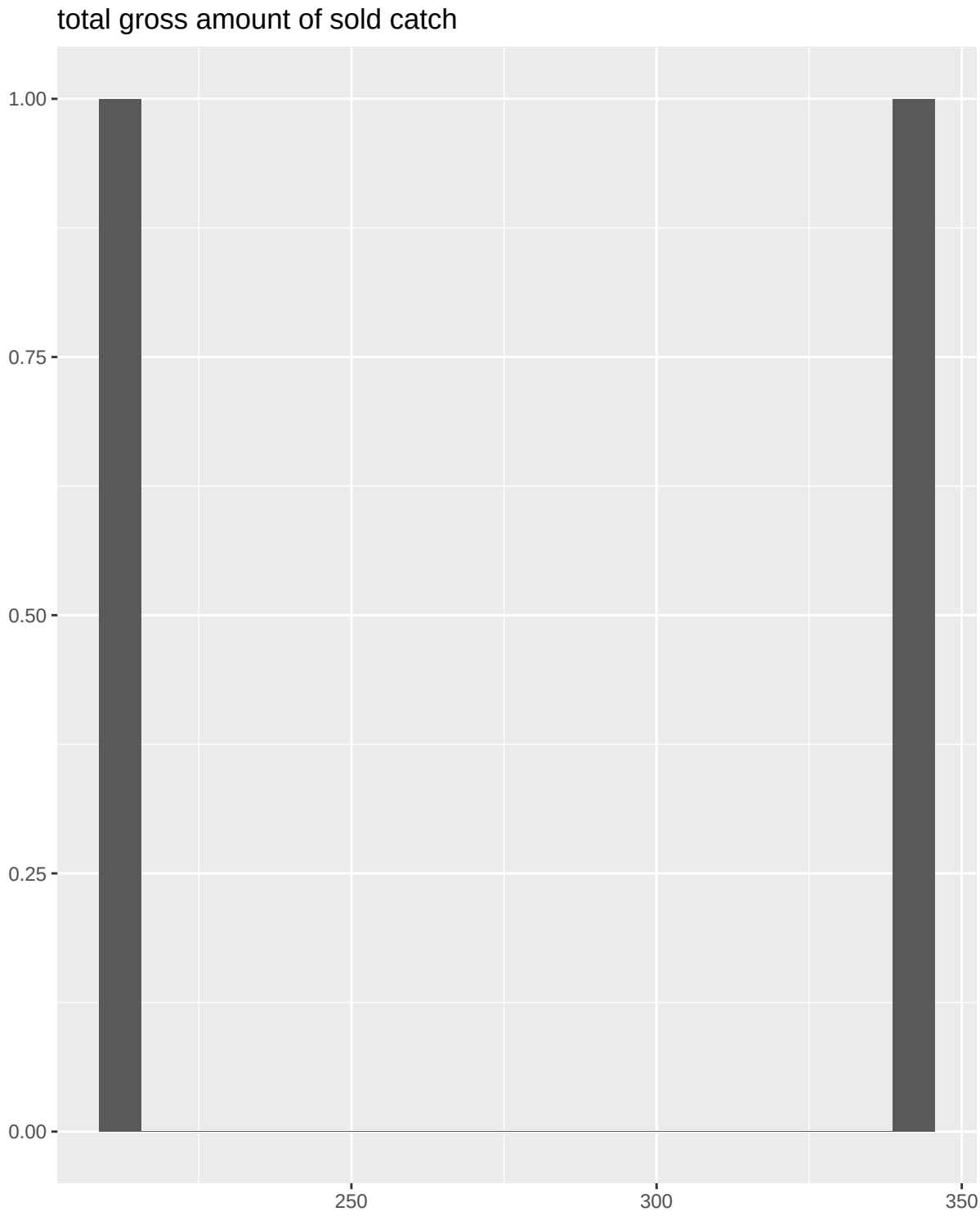
Catch: Aquarium trade (coral sponges, small colorful fish)



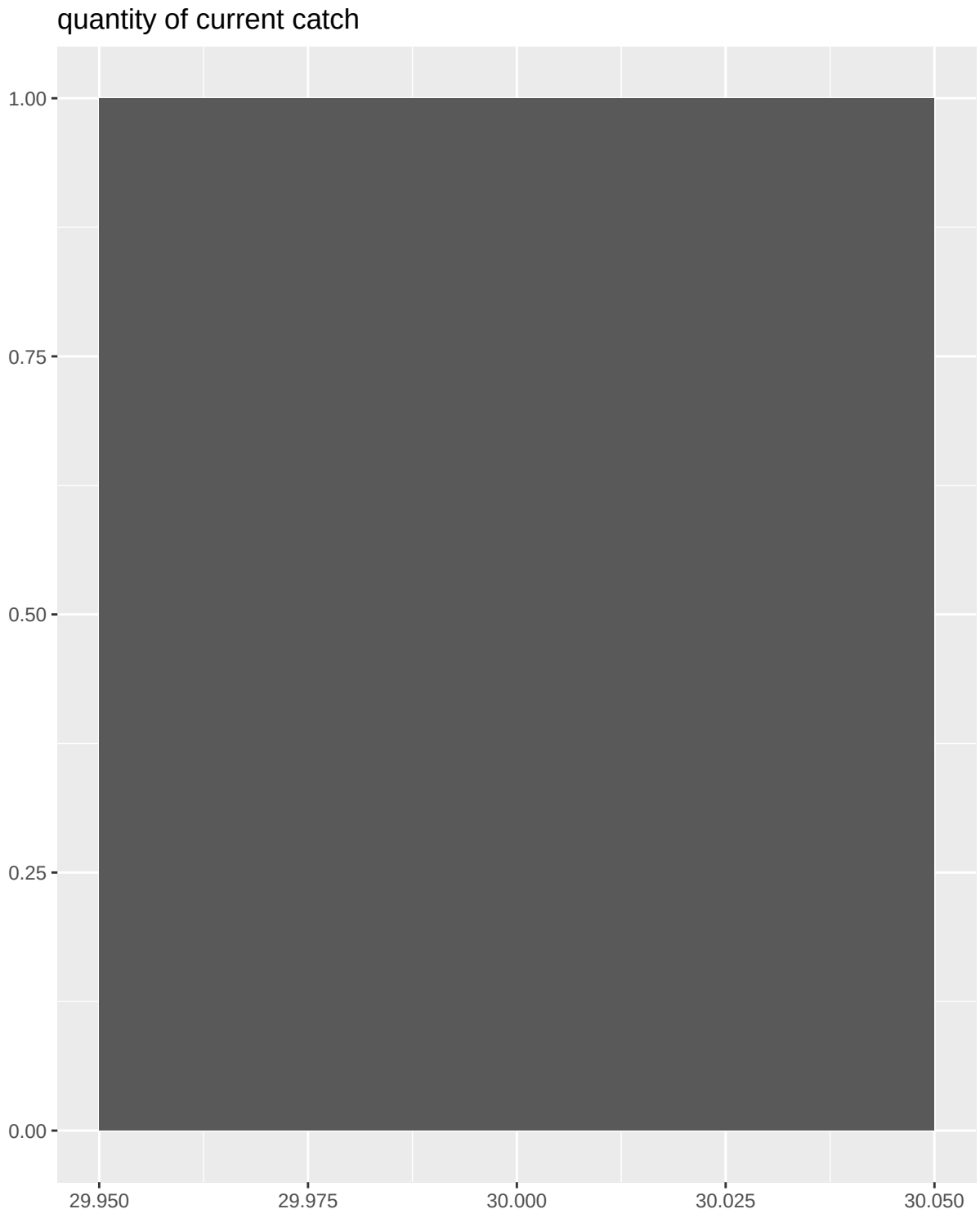
Catch: Clams




weight sold of current catch (zeroes removed; n = 2)
1.00
0.75
0.50
0.25
0.00
200
240
280

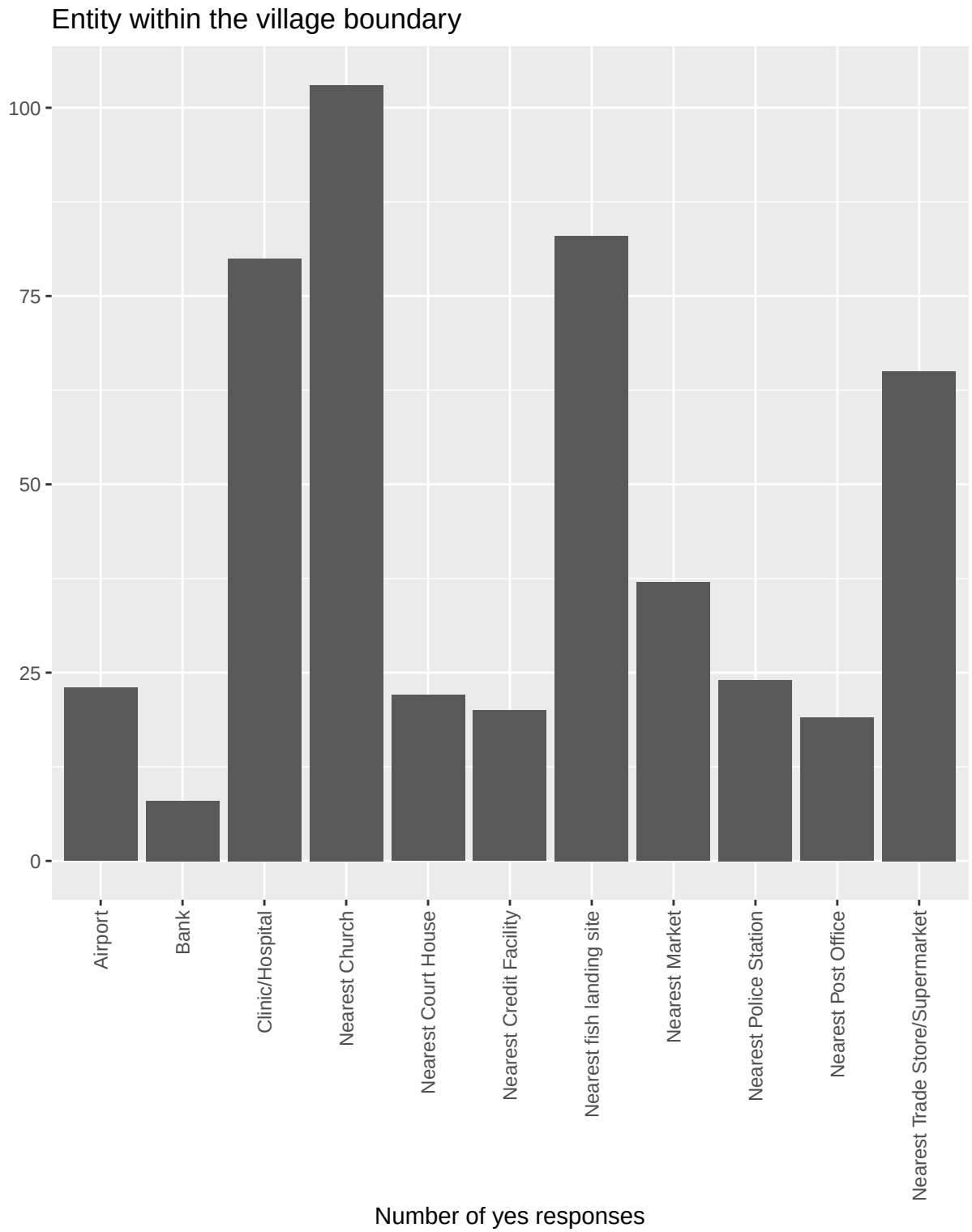

total gross amount of sold catch
1.00
0.75
0.50
0.25
0.00
250
300
350

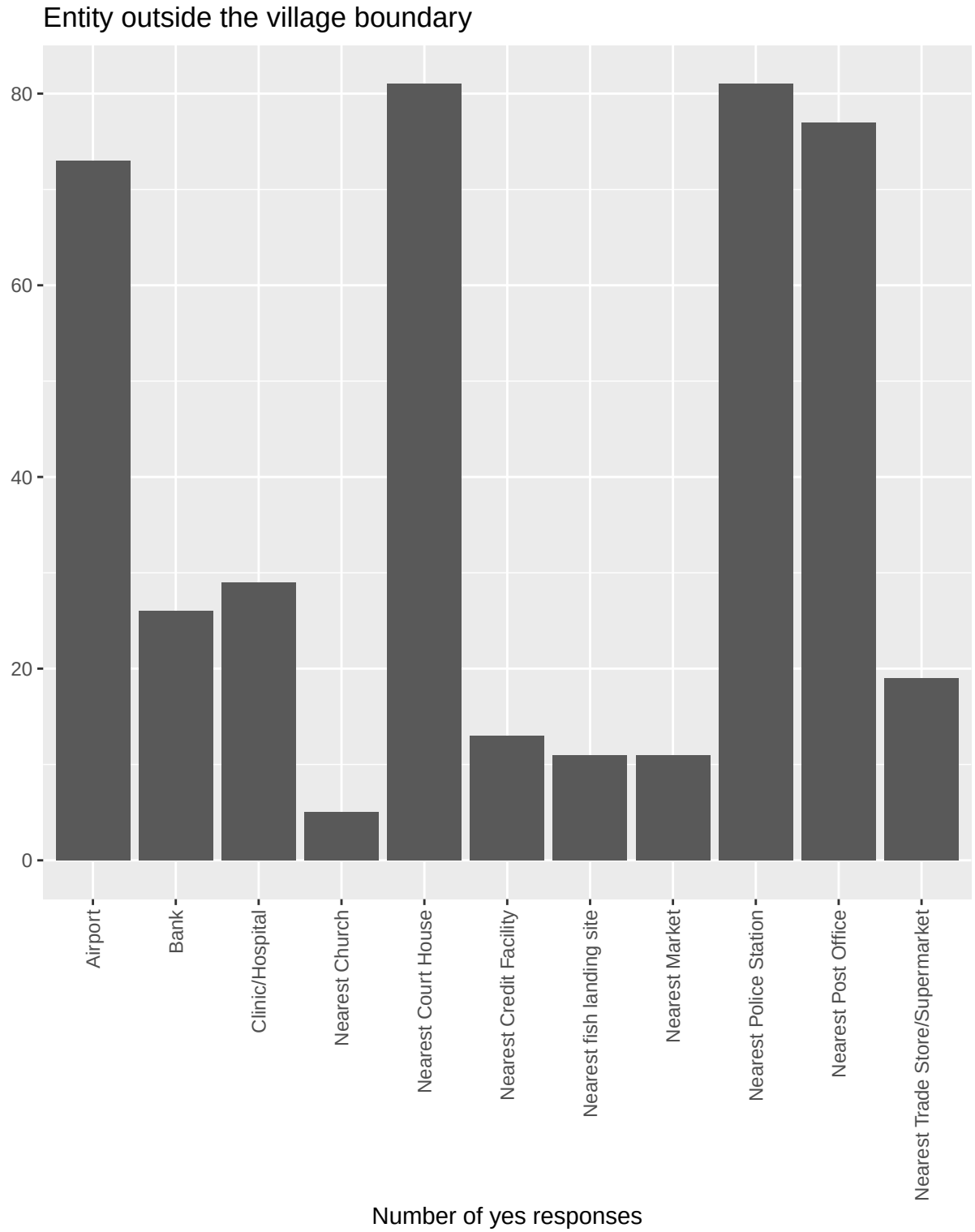
Catch: Sea cucumber

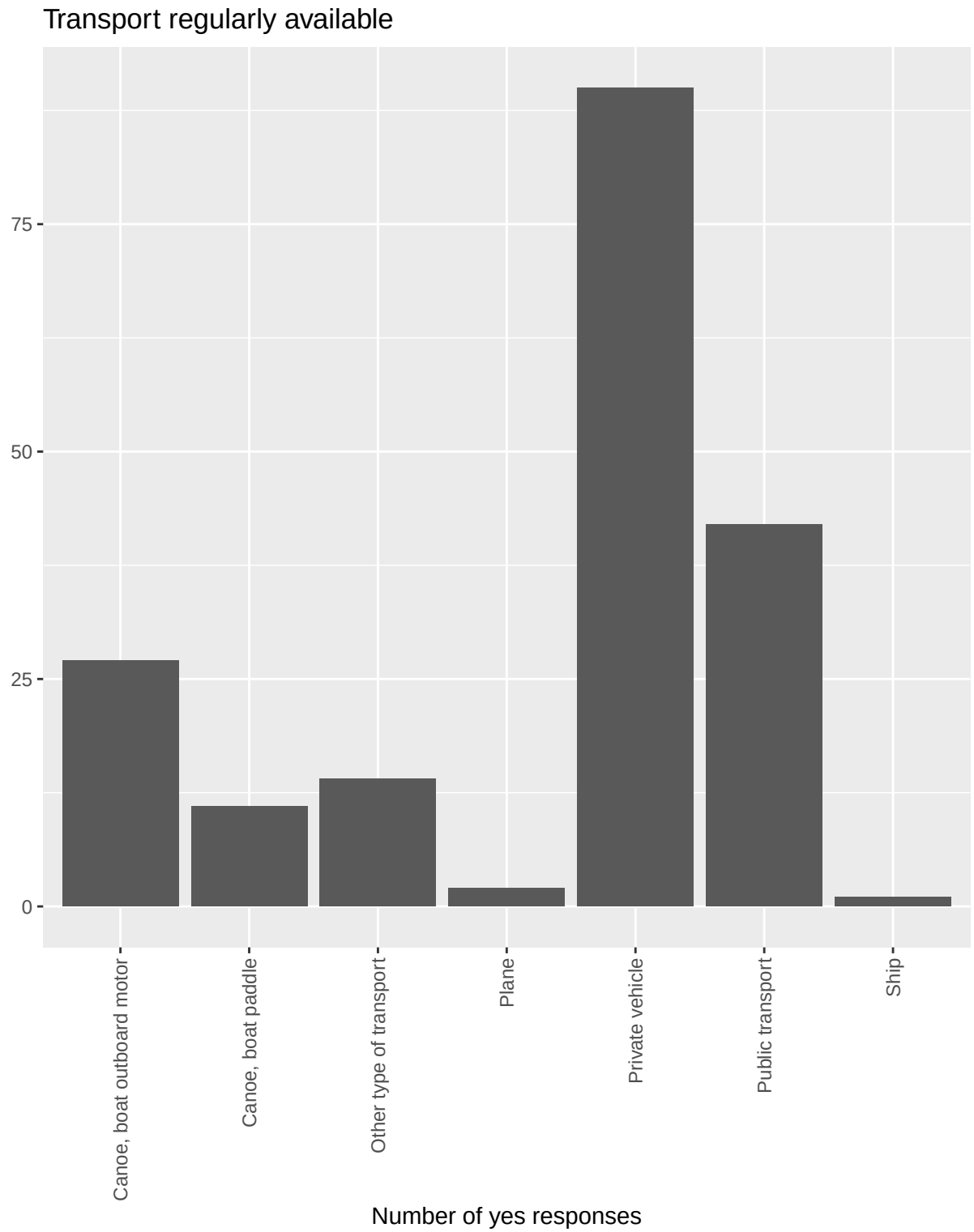


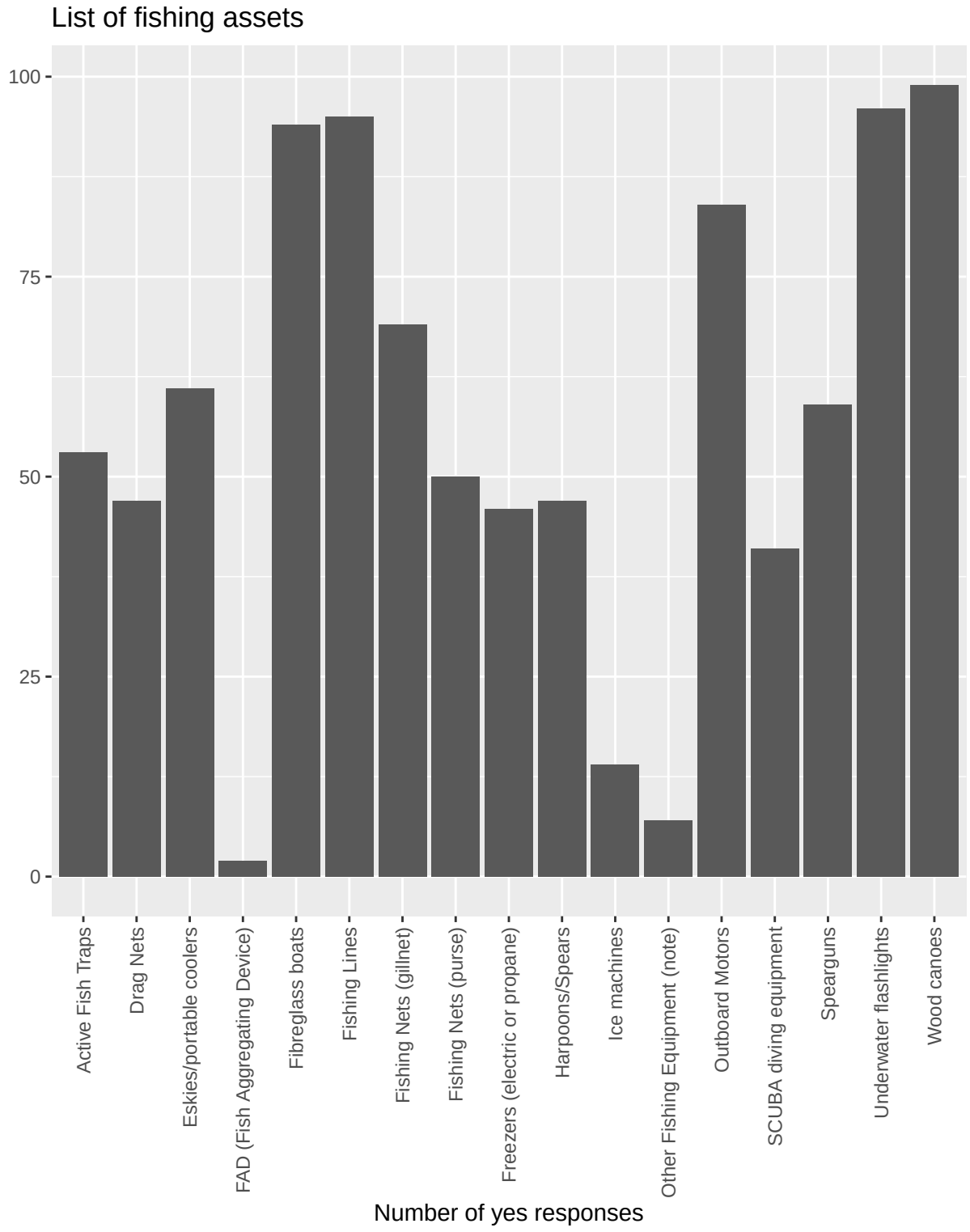
VRS Data

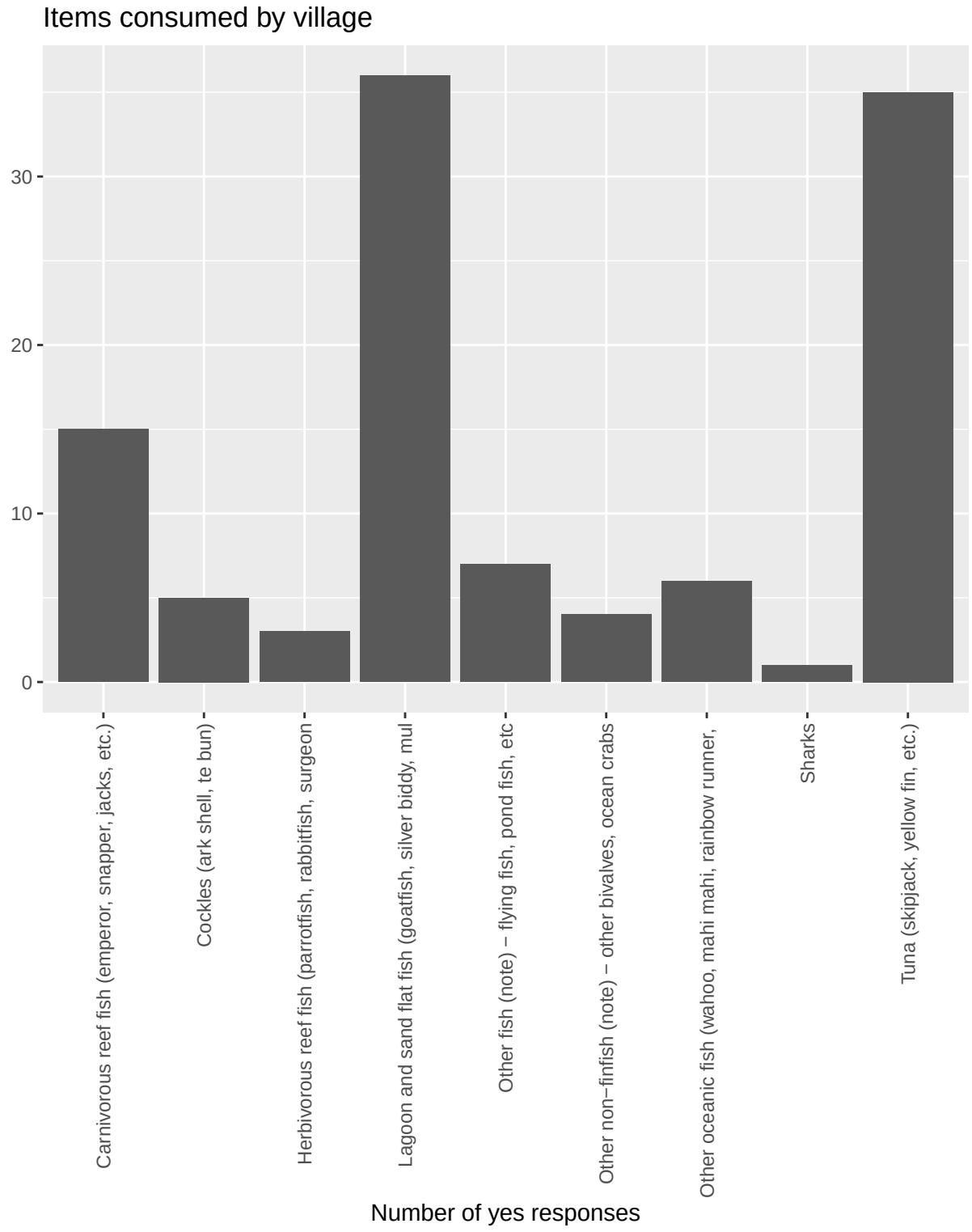
Multi-response questions

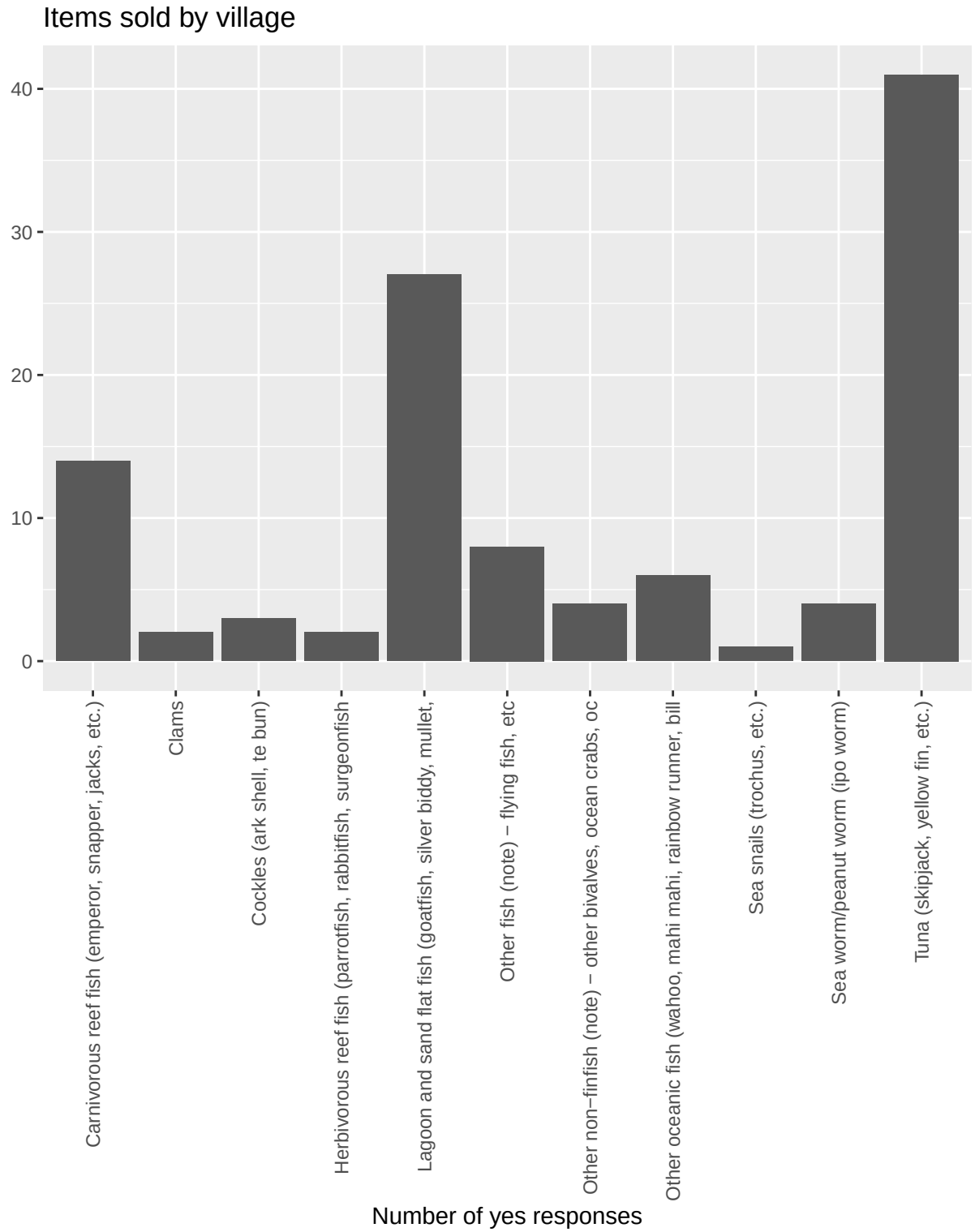


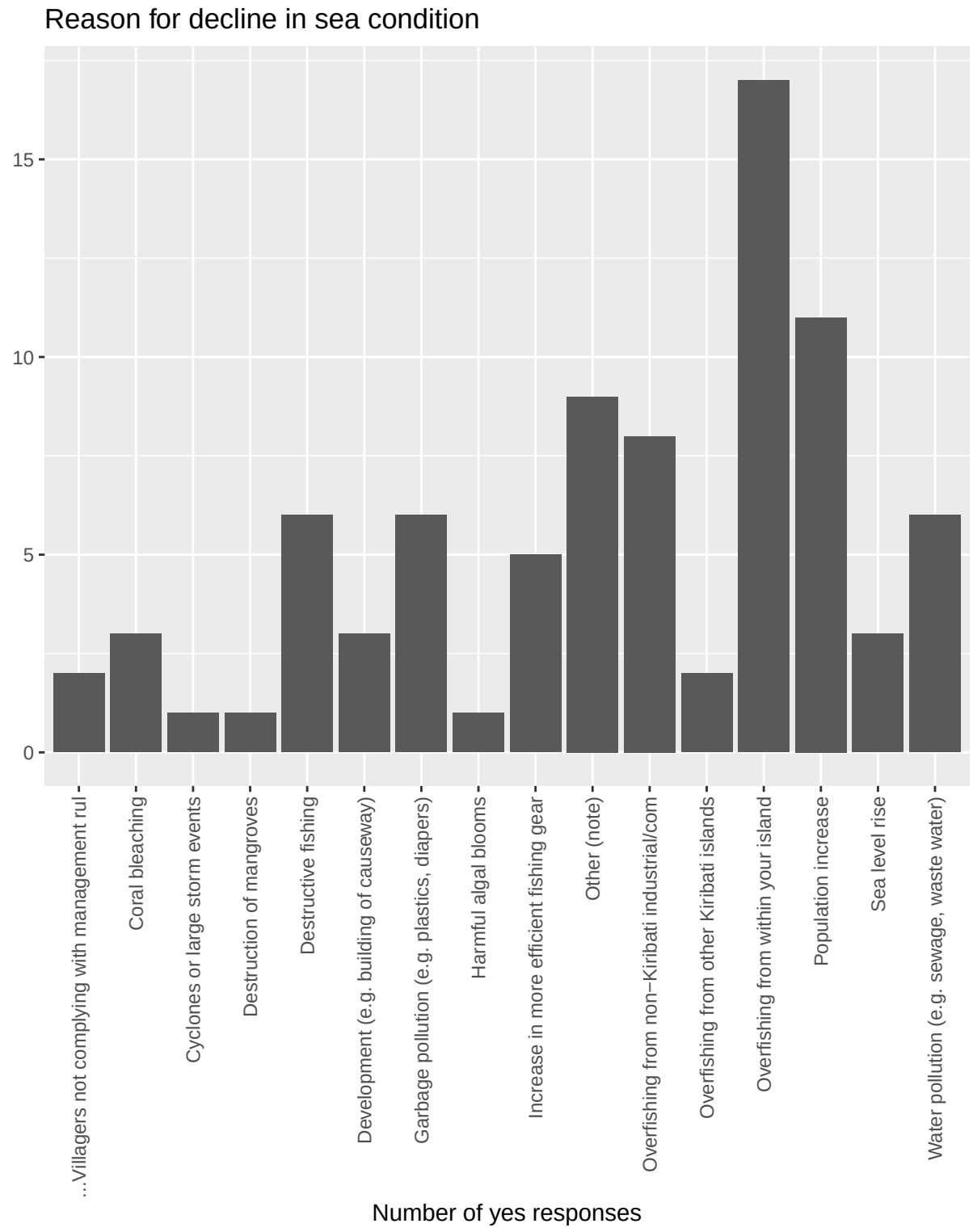

Entity outside the village boundary
80
60
40
20
0
Airport
Bank
Clinic/Hospital
Nearest Church
Nearest Court House
Nearest Credit Facility
Nearest fish landing site
Nearest Market
Nearest Police Station
Nearest Post Office
Nearest Trade Store/Supermarket
Number of yes responses

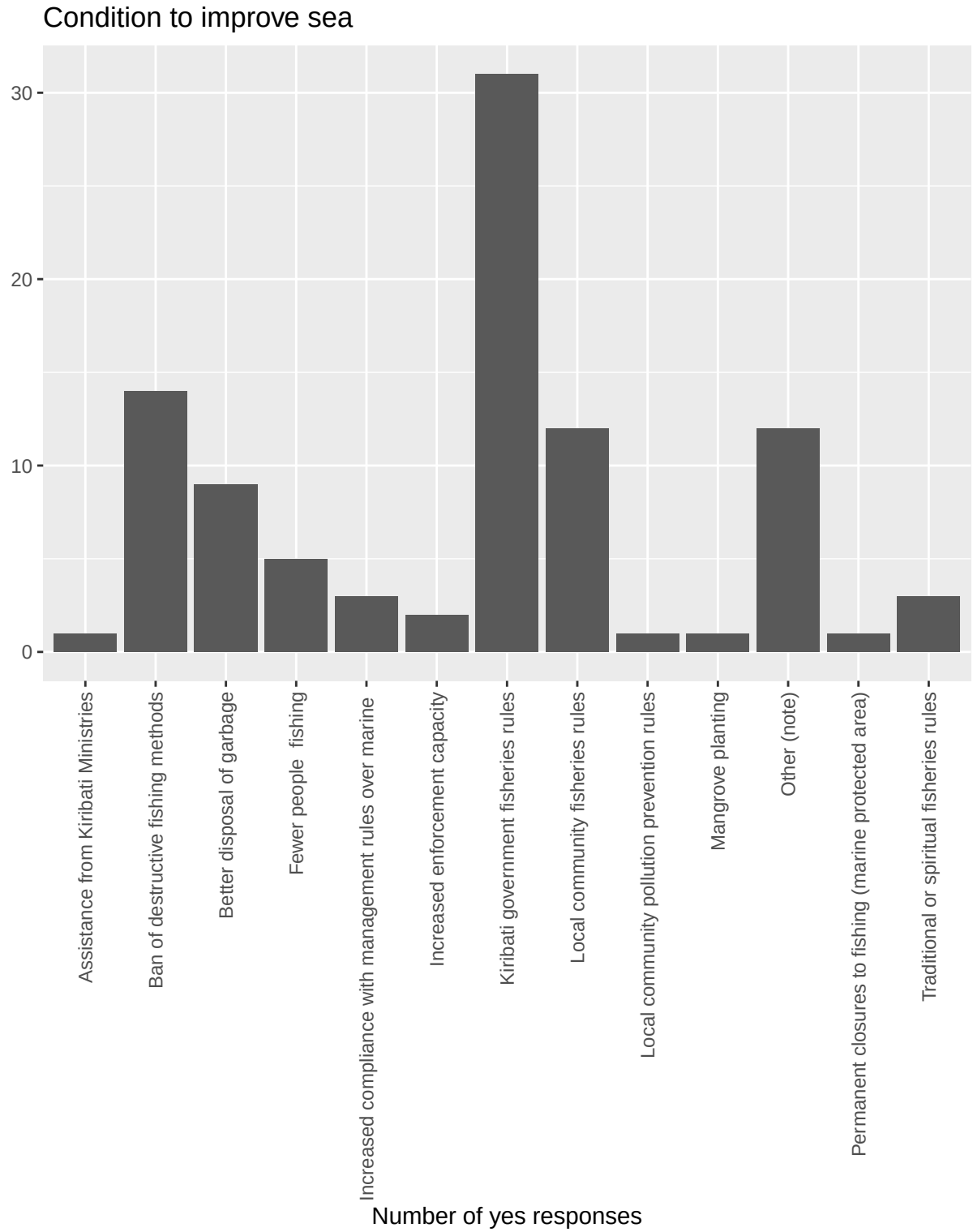

Transport regularly available
75
50
25
0
Canoe, boat outboard motor
Canoe, boat paddle
Other type of transport
Plane
Private vehicle
Public transport
Ship
Number of yes responses

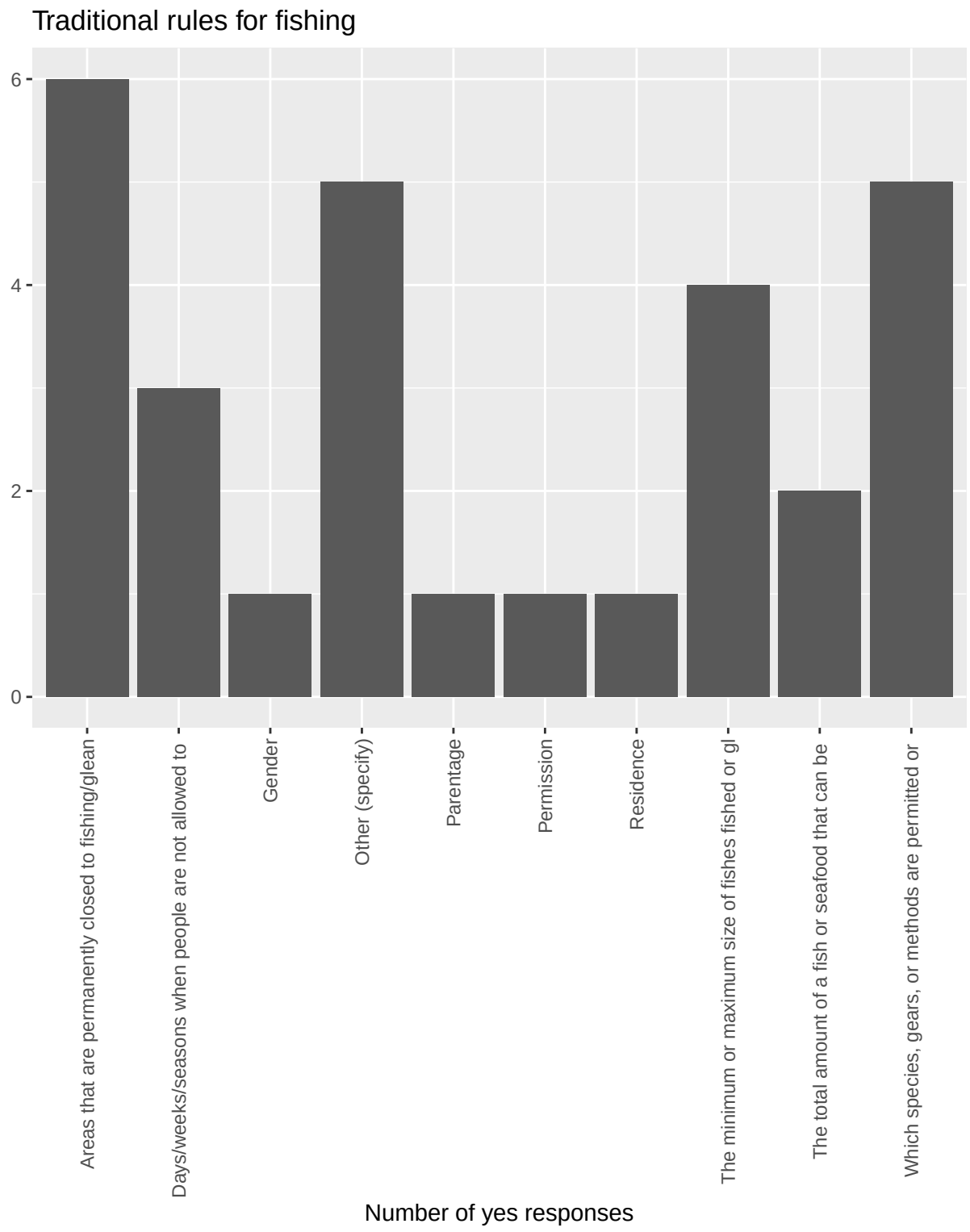

List of fishing assets
100
75
50
25
0
Active Fish Traps
Drag Nets
Eskies/portable coolers
FAD (Fish Aggregating Device)
Fibreglass boats
Fishing Lines
Fishing Nets (gillnet)
Fishing Nets (purse)
Freezers (electric or propane)
Harpoons/Spears
Ice machines
Other Fishing Equipment (note)
Outboard Motors
SCUBA diving equipment
Spearguns
Underwater flashlights
Wood canoes
Number of yes responses

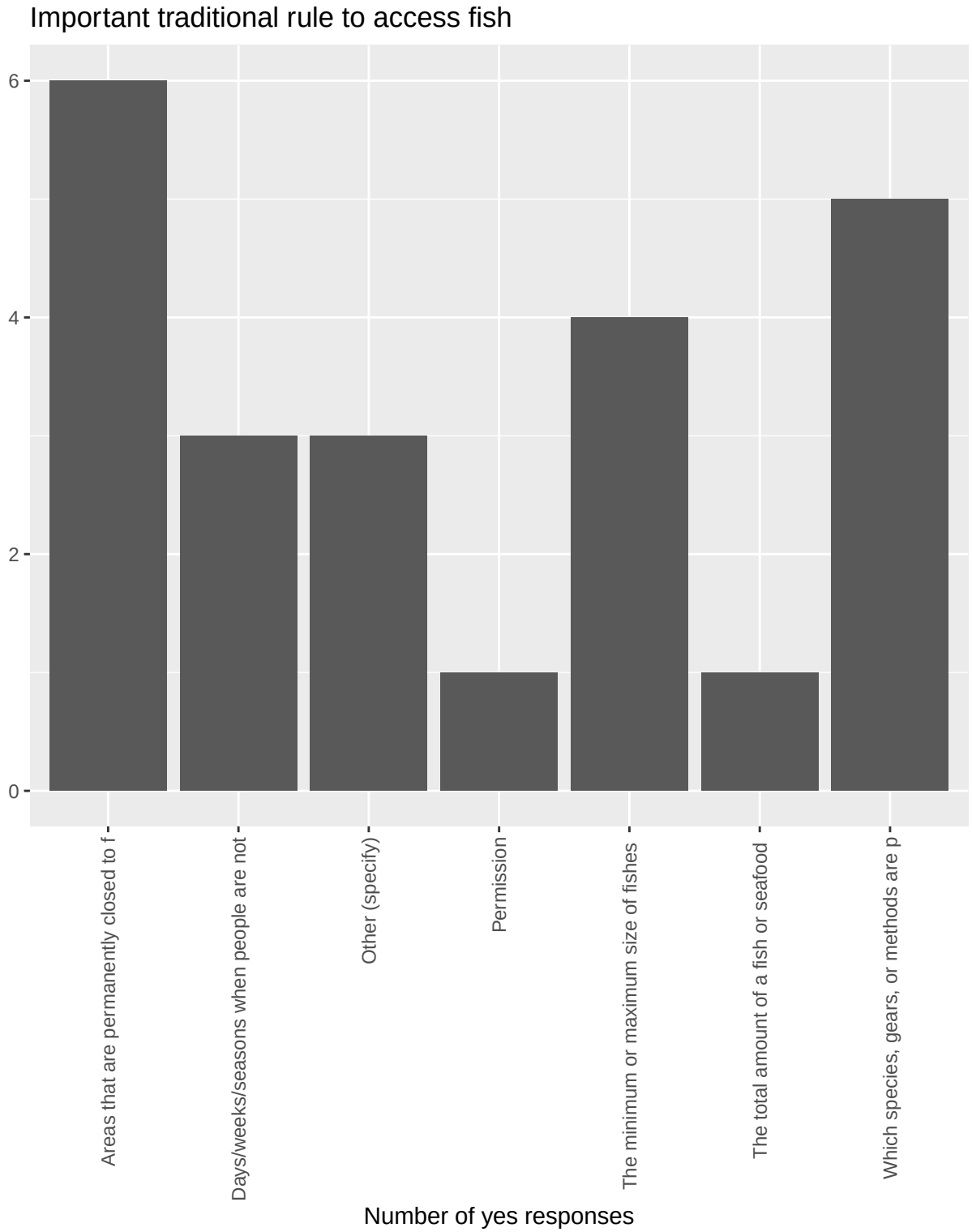

Items consumed by village
30
20
10
0
Carnivorous reef fish (emperor, snapper, jacks, etc.)
Cockles (ark shell, te bun)
Herbivorous reef fish (parrotfish, rabbitfish, surgeon
Lagoon and sand flat fish (goatfish, silver biddy, mul
Other fish (note) – flying fish, pond fish, etc
Other non−finfish (note) – other bivalves, ocean crabs
Other oceanic fish (wahoo, mahi mahi, rainbow runner,
Sharks
Tuna (skipjack, yellow fin, etc.)
Number of yes responses

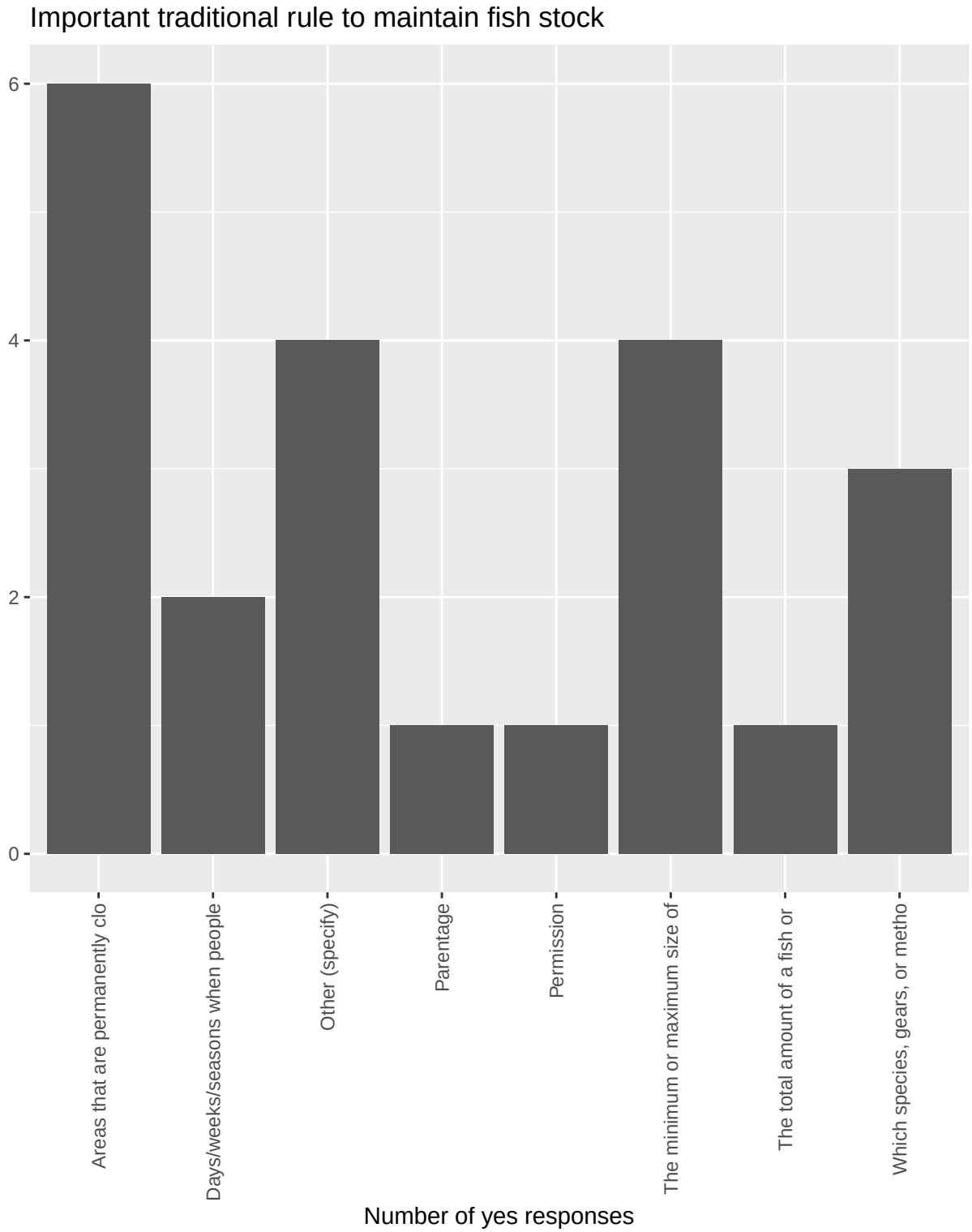

Items sold by village
40
30
20
10
0
Carnivorous reef fish (emperor, snapper, jacks, etc.)
Clams
Cockles (ark shell, te bun)
Herbivorous reef fish (parrotfish, rabbitfish, surgeonfish
Lagoon and sand flat fish (goatfish, silver biddy, mullet,
Other fish (note) – flying fish, etc
Other non–finfish (note) – other bivalves, ocean crabs, oc
Other oceanic fish (wahoo, mahi mahi, rainbow runner, bill
Sea snails (trochus, etc.)
Sea worm/peanut worm (ipo worm)
Tuna (skipjack, yellow fin, etc.)
Number of yes responses

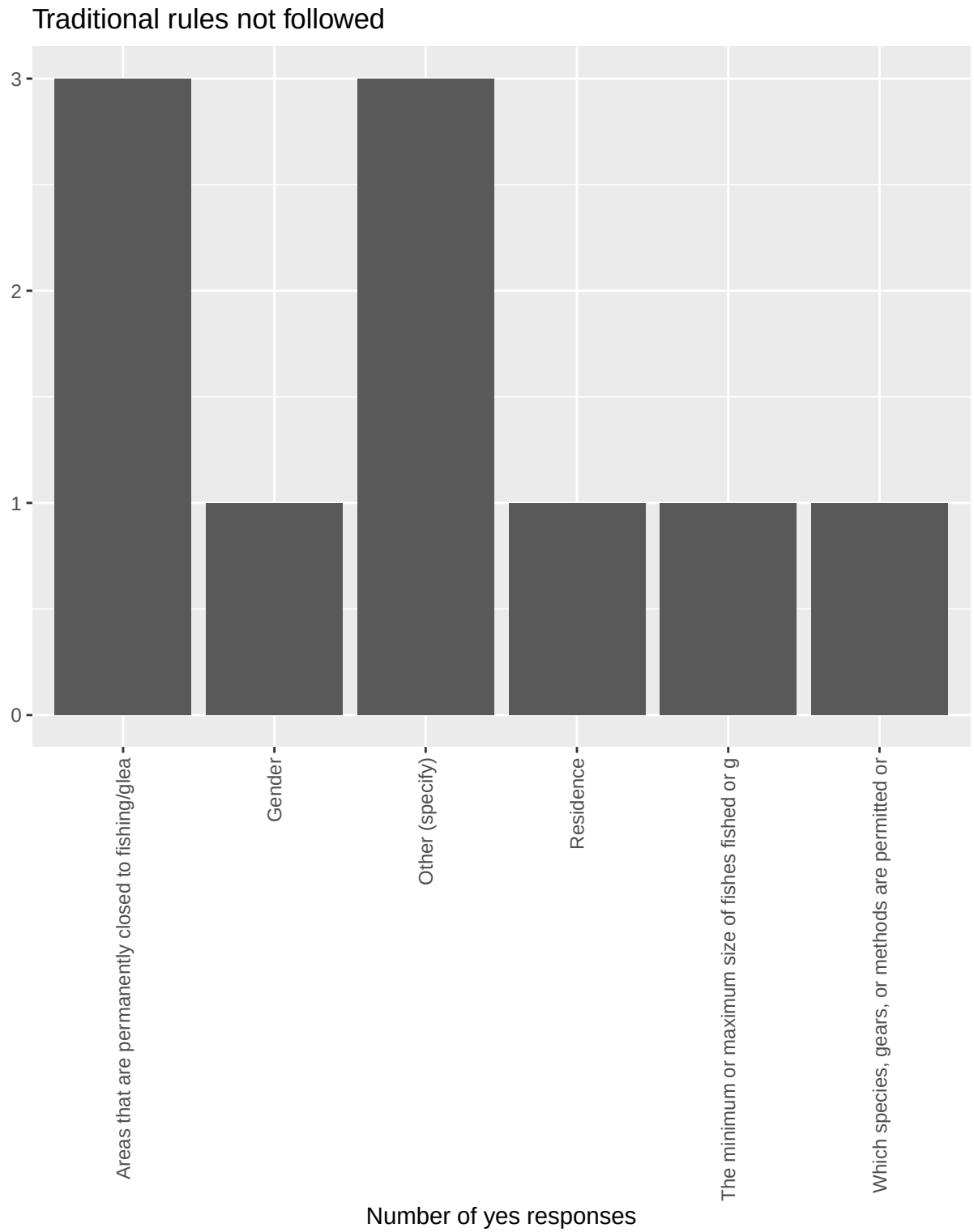

Reason for decline in sea condition
15
10
5
0
...Villagers not complying with management rul
Coral bleaching
Cyclones or large storm events
Destruction of mangroves
Destructive fishing
Development (e.g. building of causeway)
Garbage pollution (e.g. plastics, diapers)
Harmful algal blooms
Increase in more efficient fishing gear
Other (note)
Overfishing from non−Kiribati industrial/com
Overfishing from other Kiribati islands
Overfishing from within your island
Population increase
Sea level rise
Water pollution (e.g. sewage, waste water)
Number of yes responses

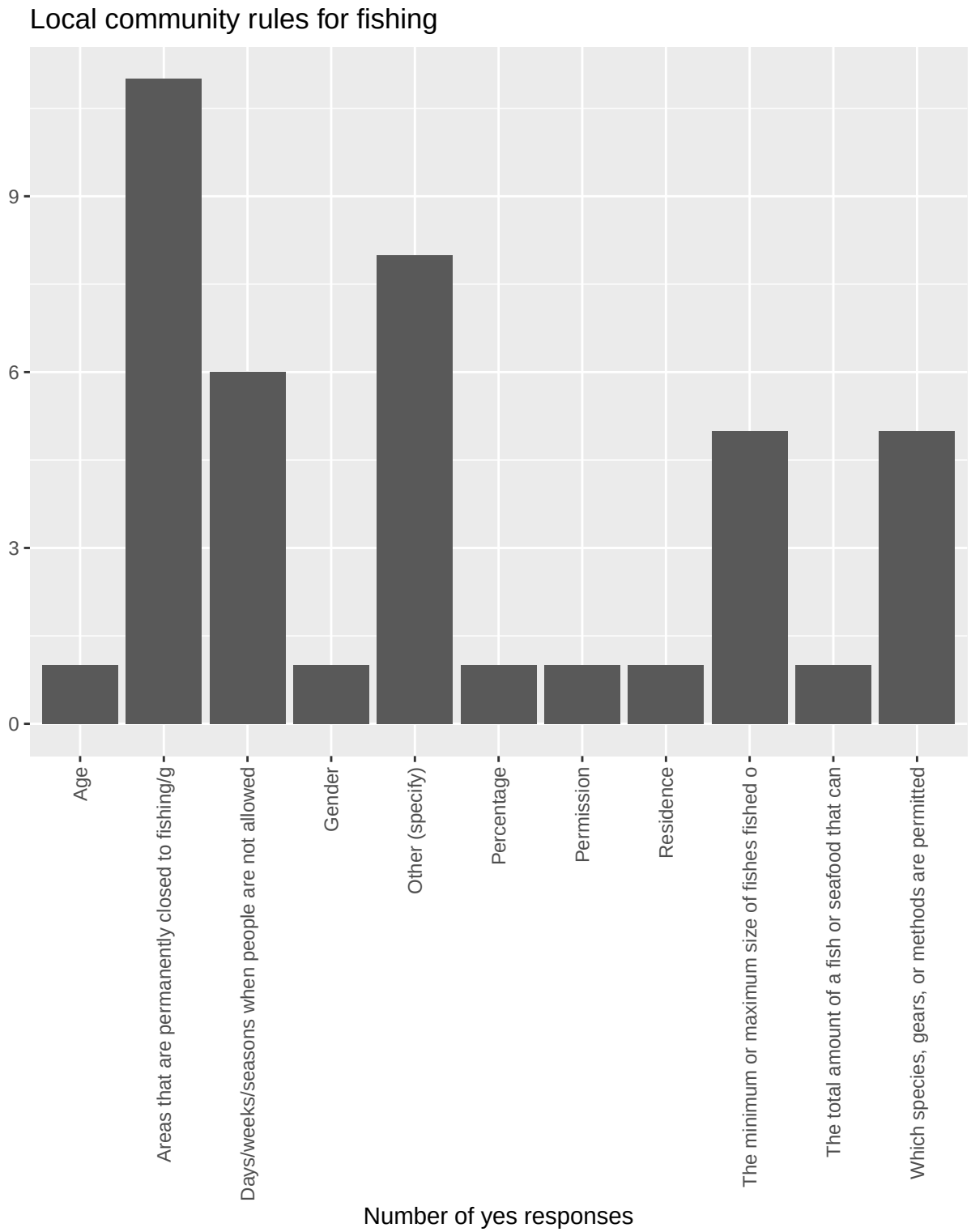

Condition to improve sea
30
20
10
0
Assistance from Kiribati Ministries
Ban of destructive fishing methods
Better disposal of garbage
Fewer people fishing
Increased compliance with management rules over marine
Increased enforcement capacity
Kiribati government fisheries rules
Local community fisheries rules
Local community pollution prevention rules
Mangrove planting
Other (note)
Permanent closures to fishing (marine protected area)
Traditional or spiritual fisheries rules
Number of yes responses

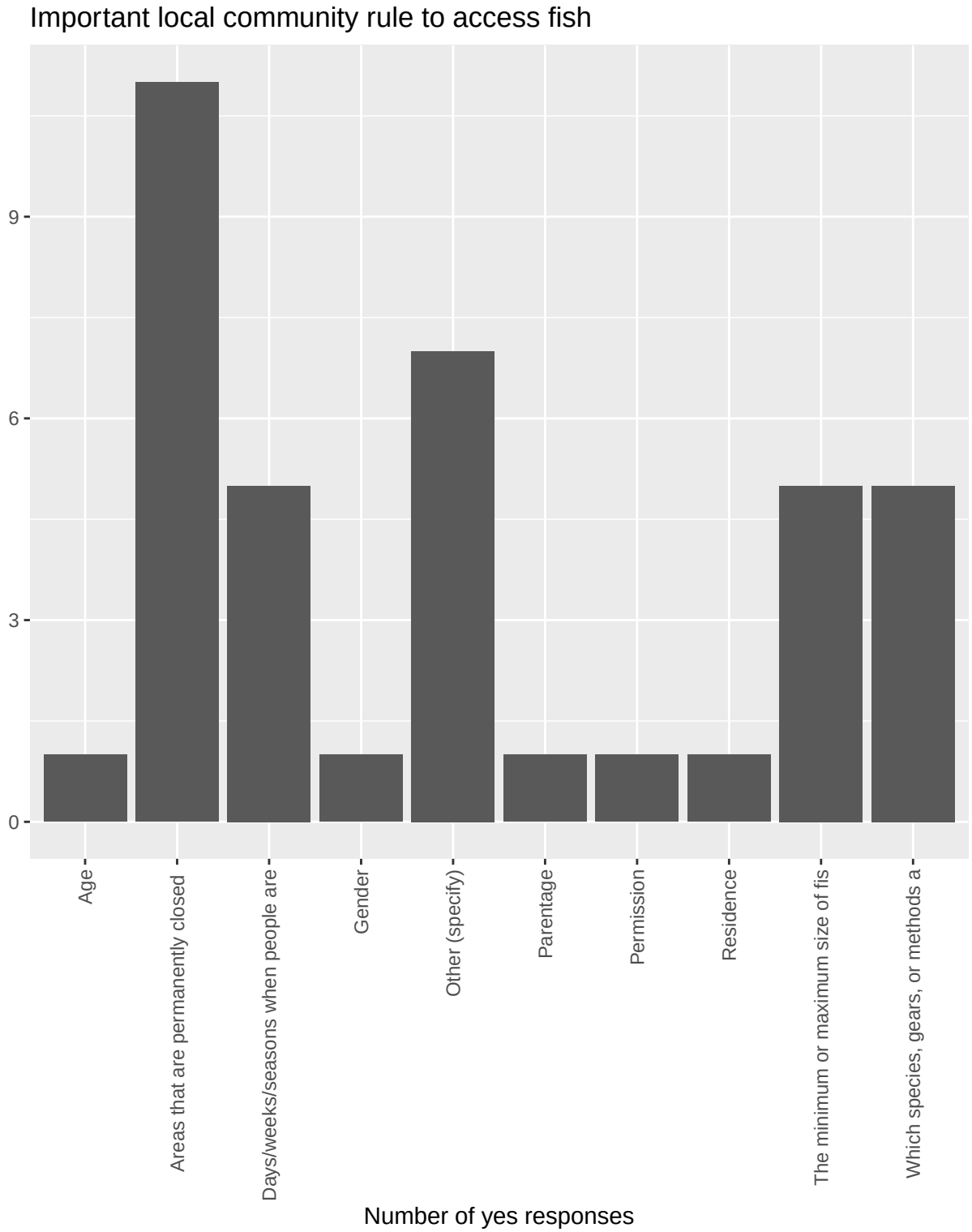

Traditional rules for fishing
6
4
2
0
Areas that are permanently closed to fishing/glean
Days/weeks/seasons when people are not allowed to
Gender
Other (specify)
Parentage
Permission
Residence
The minimum or maximum size of fishes fished or gl
The total amount of a fish or seafood that can be
Which species, gears, or methods are permitted or
Number of yes responses

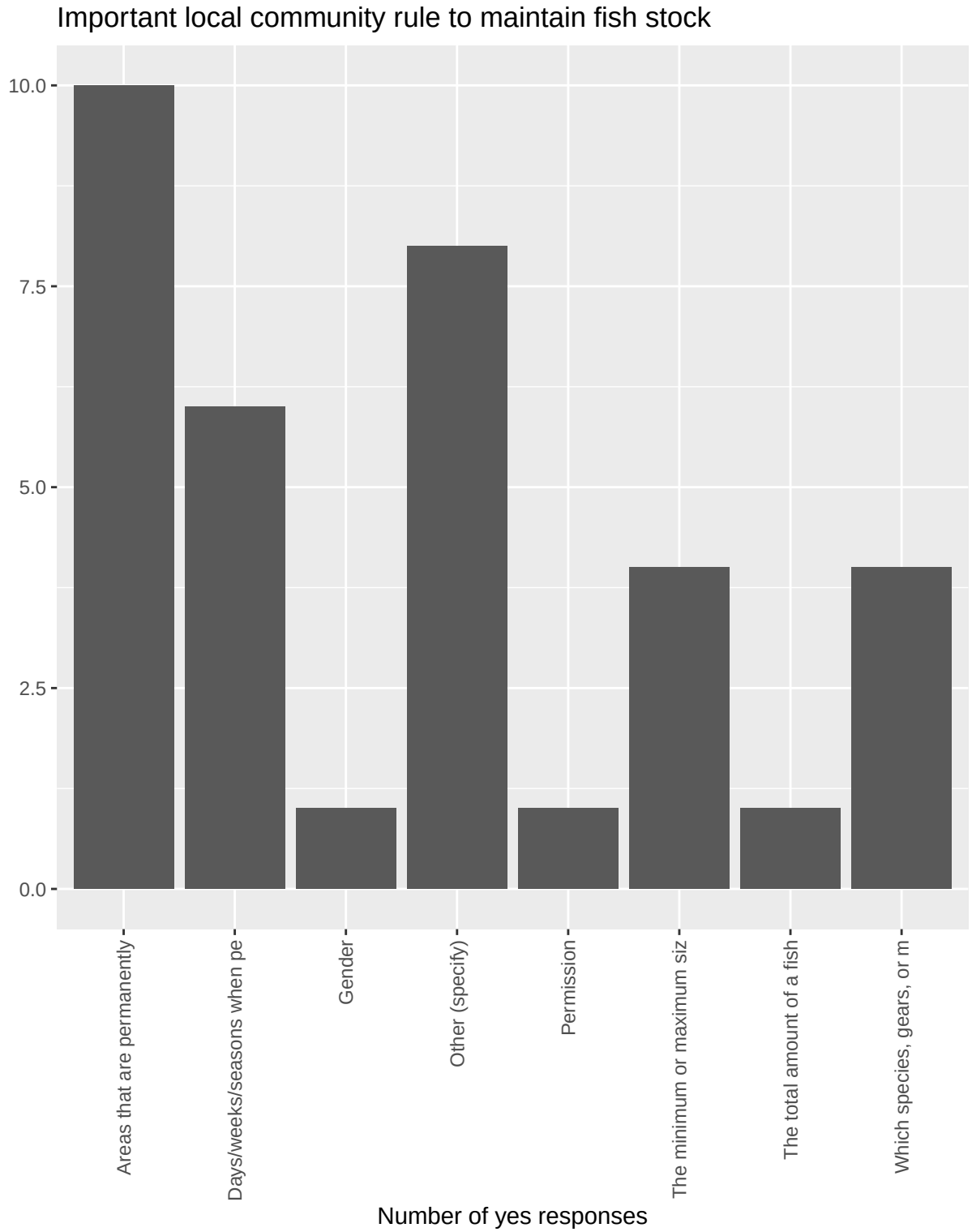

Important traditional rule to access fish
6
4
2
0
Areas that are permanently closed to f
Days/weeks/seasons when people are not
Other (specify)
Permission
The minimum or maximum size of fishes
The total amount of a fish or seafood
Which species, gears, or methods are p
Number of yes responses

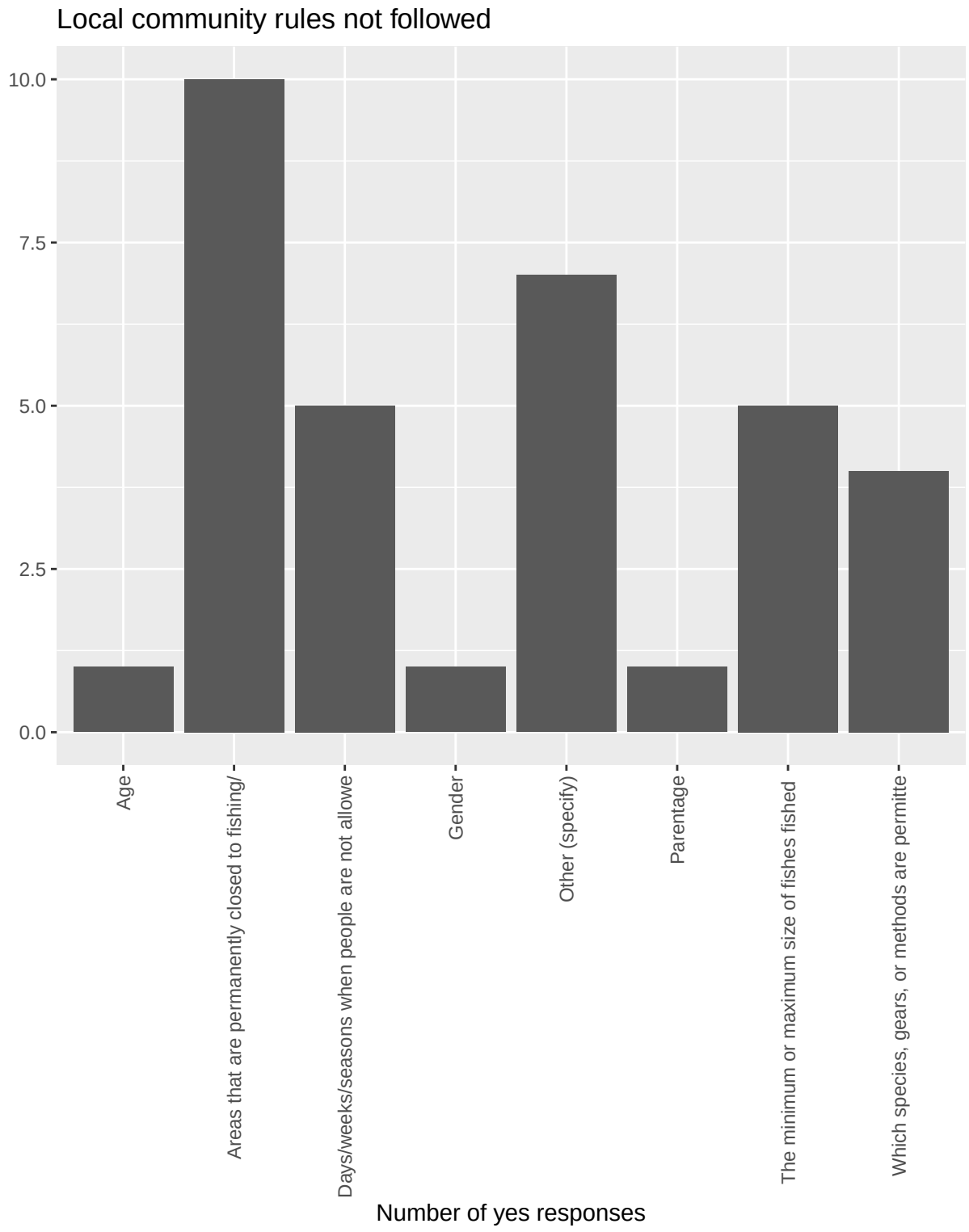

Important traditional rule to maintain fish stock
6
4
2
0
Areas that are permanently clo
Days/weeks/seasons when people
Other (specify)
Parentage
Permission
The minimum or maximum size of
The total amount of a fish or
Which species, gears, or metho
Number of yes responses

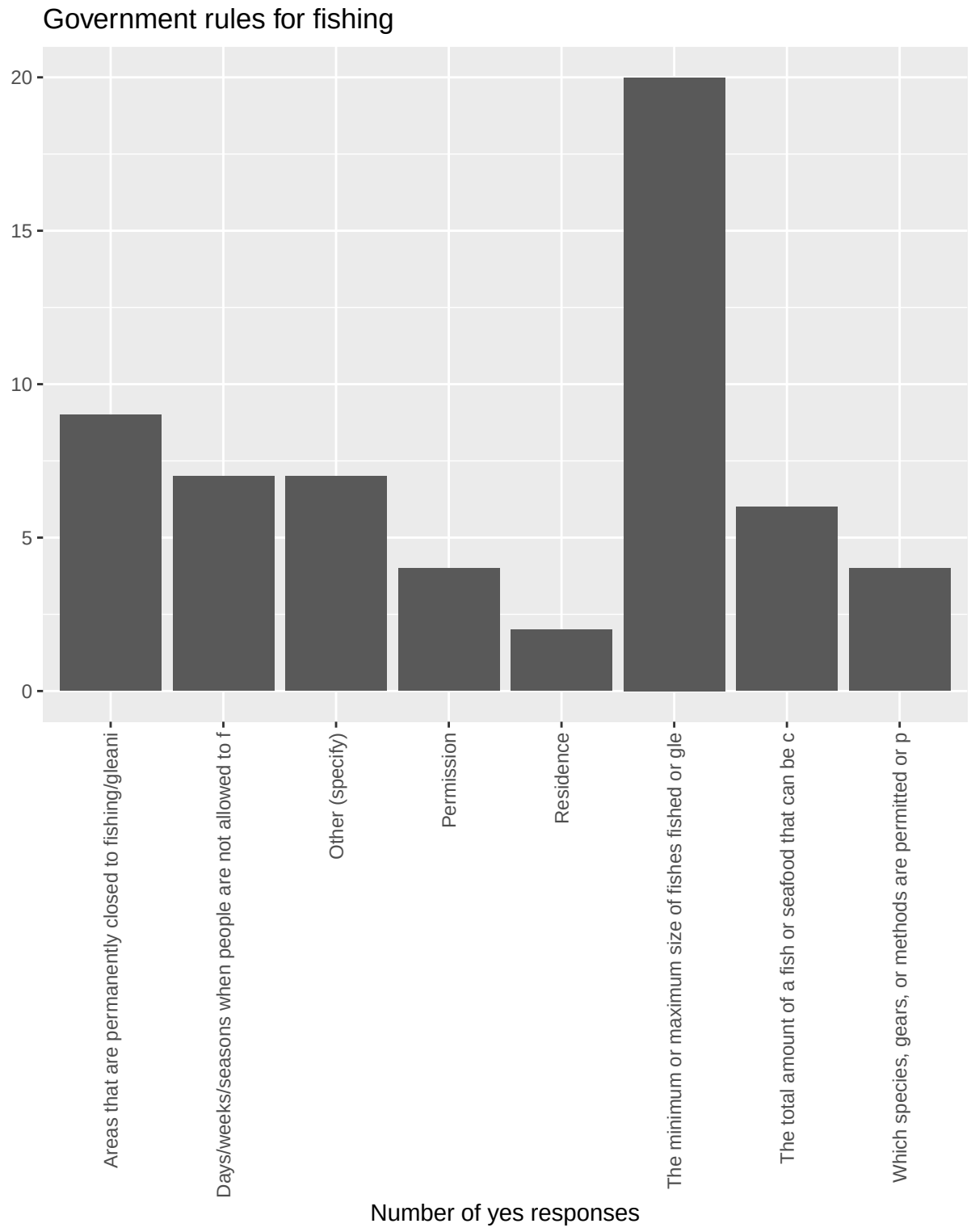

Traditional rules not followed
3
2
1
0
Areas that are permanently closed to fishing/glea
Gender
Other (specify)
Residence
The minimum or maximum size of fishes fished or g
Which species, gears, or methods are permitted or
Number of yes responses

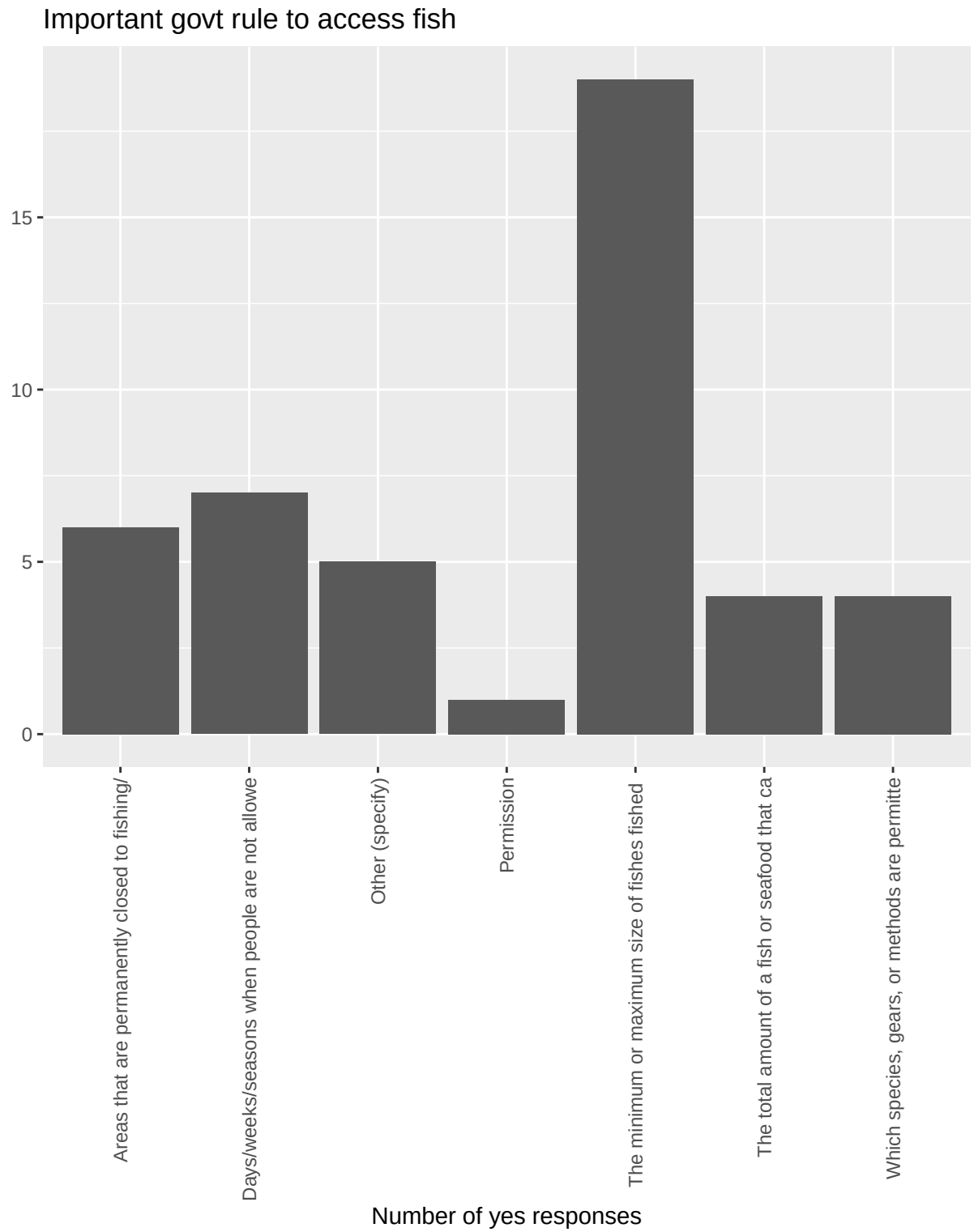

Local community rules for fishing
9
6
3
0
Age
Areas that are permanently closed to fishing/g
Days/weeks/seasons when people are not allowed
Gender
Other (specify)
Percentage
Permission
Residence
The minimum or maximum size of fishes fished o
The total amount of a fish or seafood that can
Which species, gears, or methods are permitted
Number of yes responses

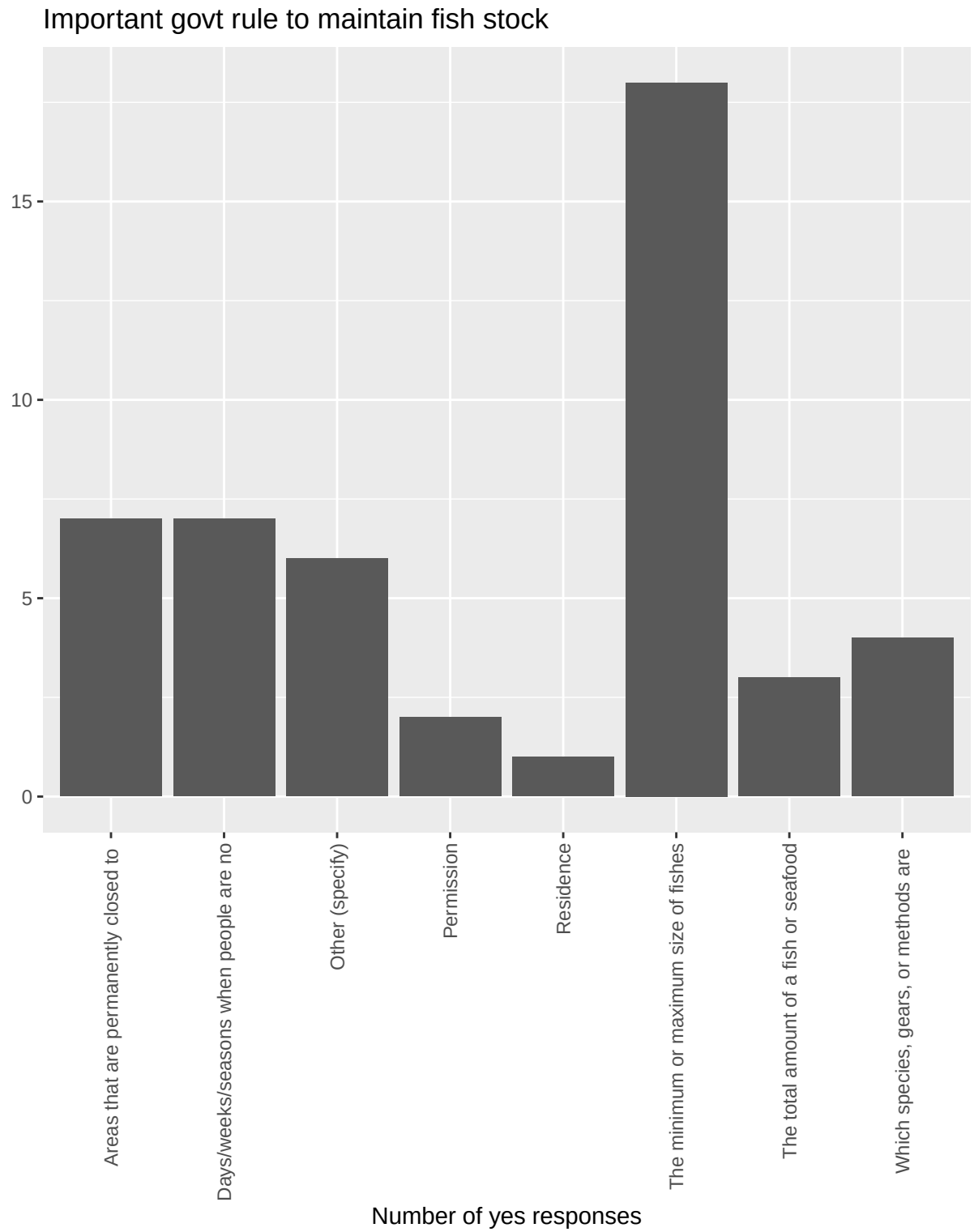

Important local community rule to access fish
9
6
3
0
Age
Areas that are permanently closed
Days/weeks/seasons when people are
Gender
Other (specify)
Parentage
Permission
Residence
The minimum or maximum size of fis
Which species, gears, or methods a
Number of yes responses

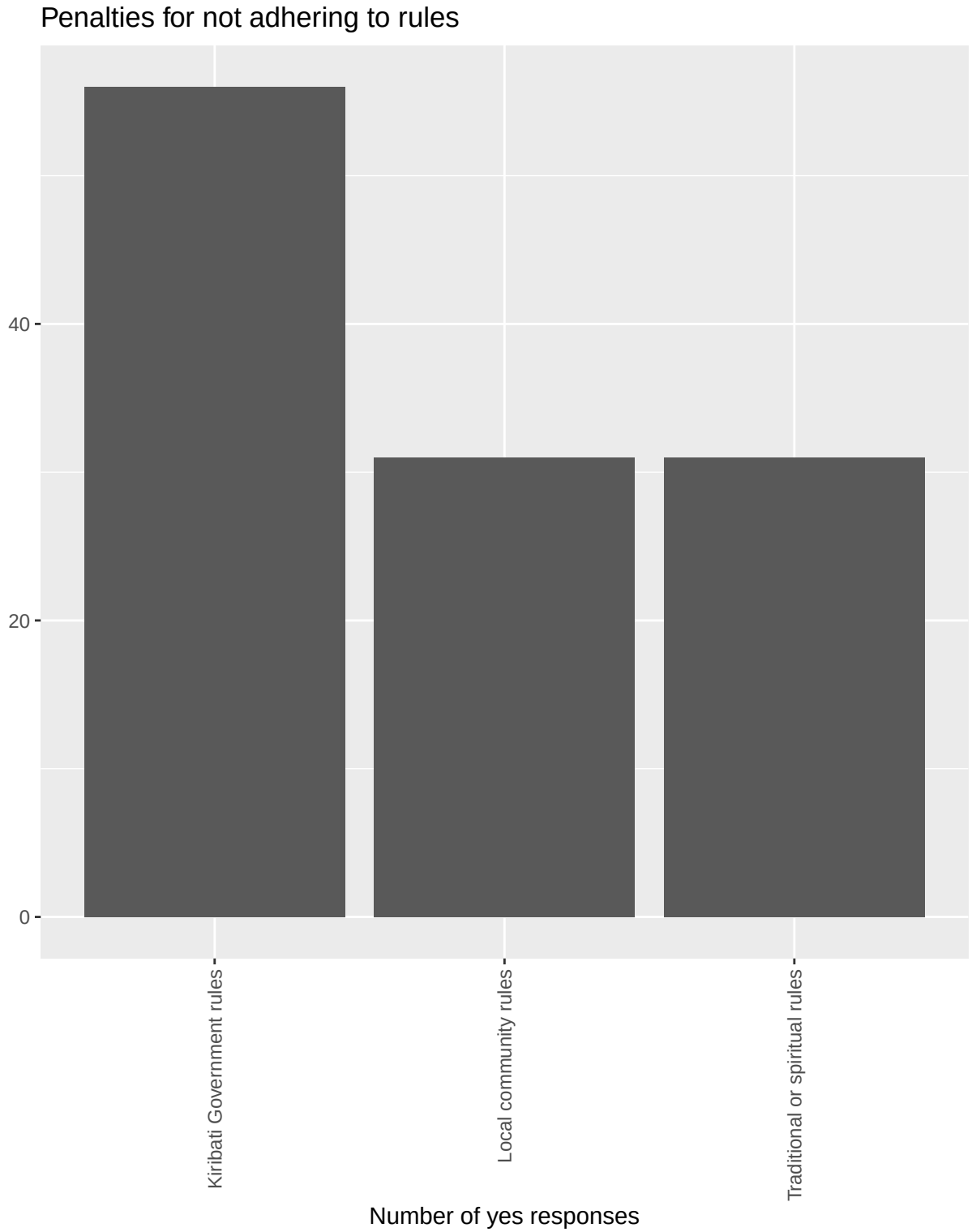

Important local community rule to maintain fish stock
10.0
7.5
5.0
2.5
0.0
Areas that are permanently
Days/weeks/seasons when pe
Gender
Other (specify)
Permission
The minimum or maximum siz
The total amount of a fish
Which species, gears, or m
Number of yes responses

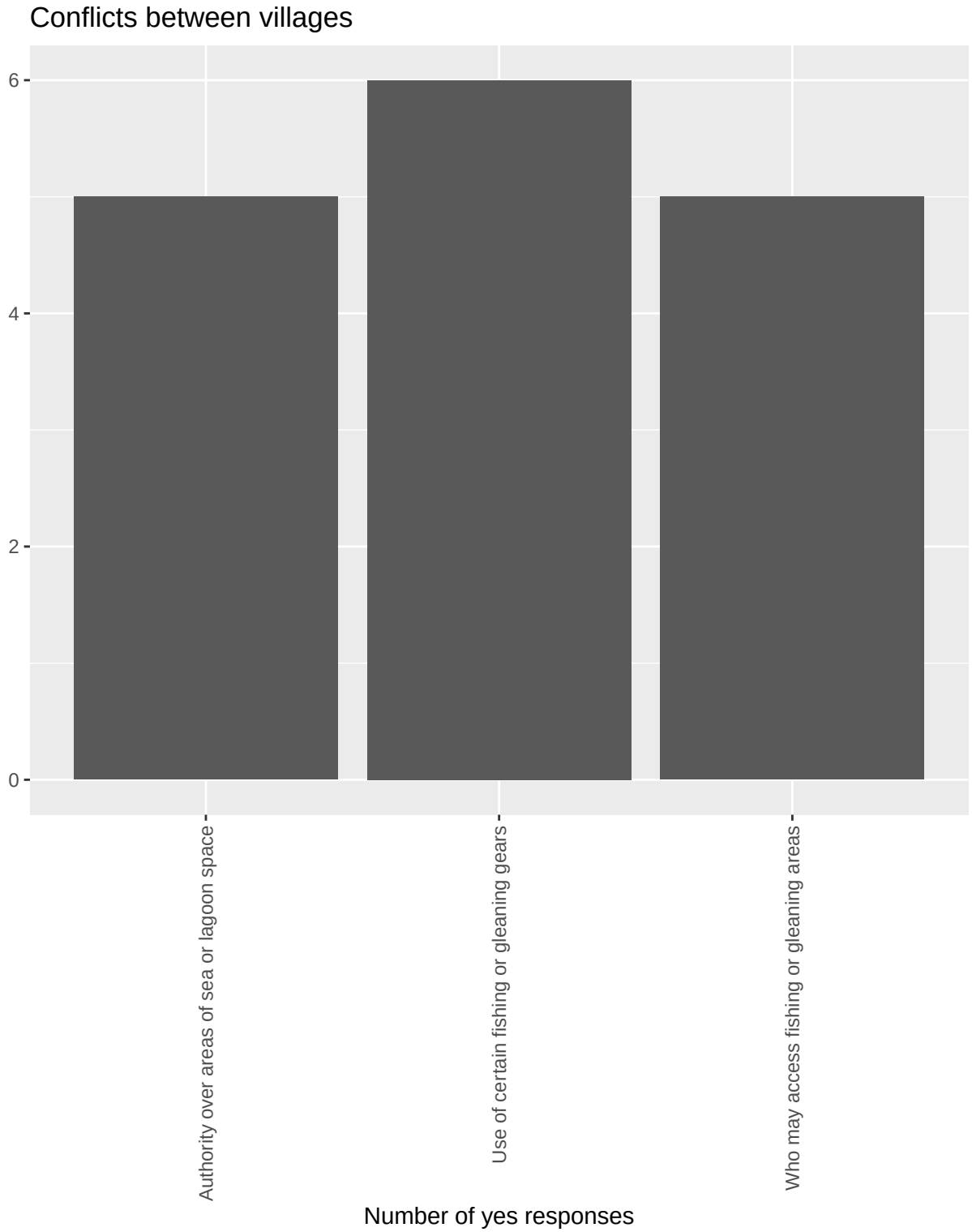

Local community rules not followed
10.0
7.5
5.0
2.5
0.0
Age
Areas that are permanently closed to fishing/
Days/weeks/seasons when people are not allowe
Gender
Other (specify)
Parentage
The minimum or maximum size of fishes fished
Which species, gears, or methods are permitte
Number of yes responses

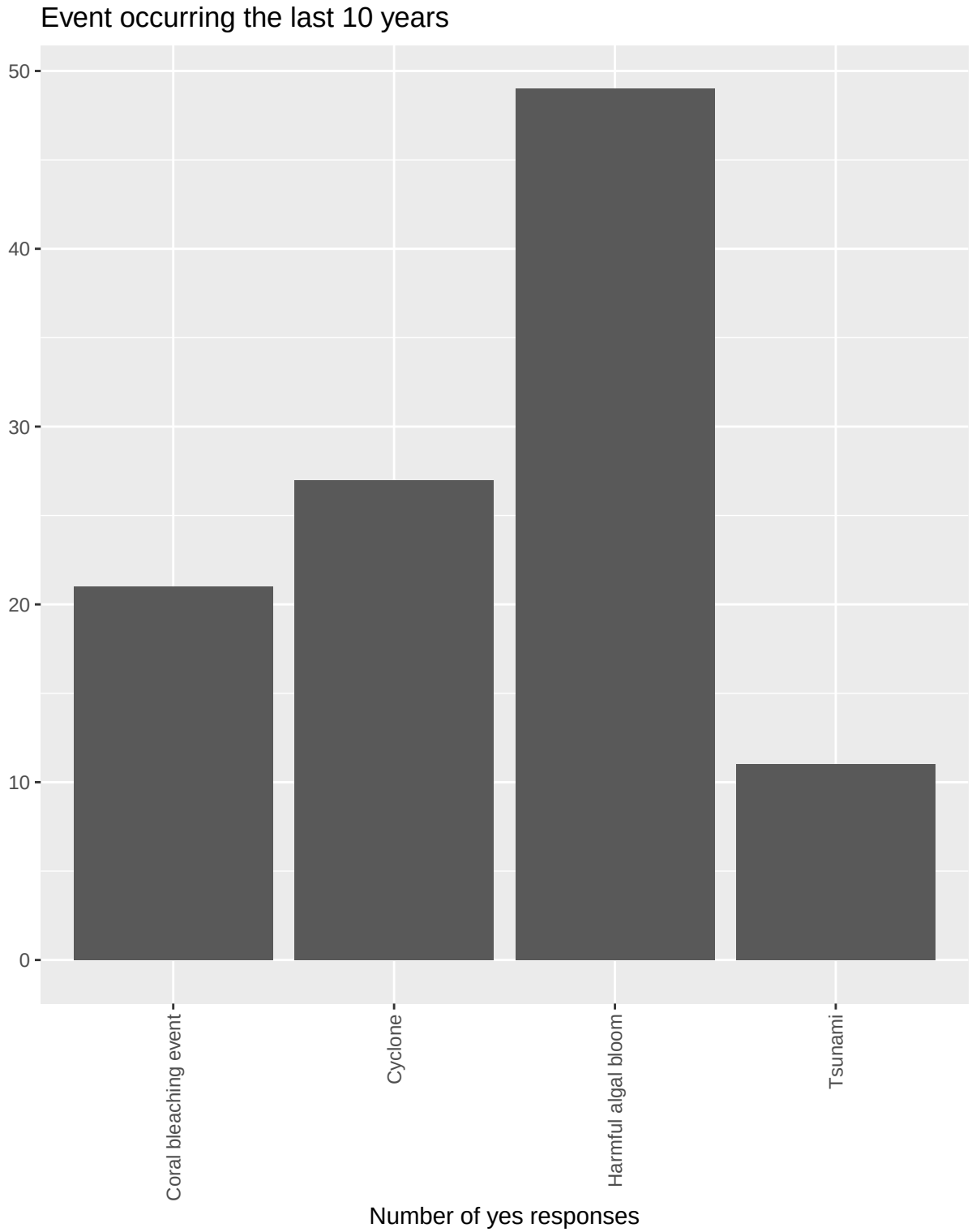

Government rules for fishing
20
15
10
5
0
Areas that are permanently closed to fishing/gleani
Days/weeks/seasons when people are not allowed to f
Other (specify)
Permission
Residence
The minimum or maximum size of fishes fished or gle
The total amount of a fish or seafood that can be c
Which species, gears, or methods are permitted or p
Number of yes responses

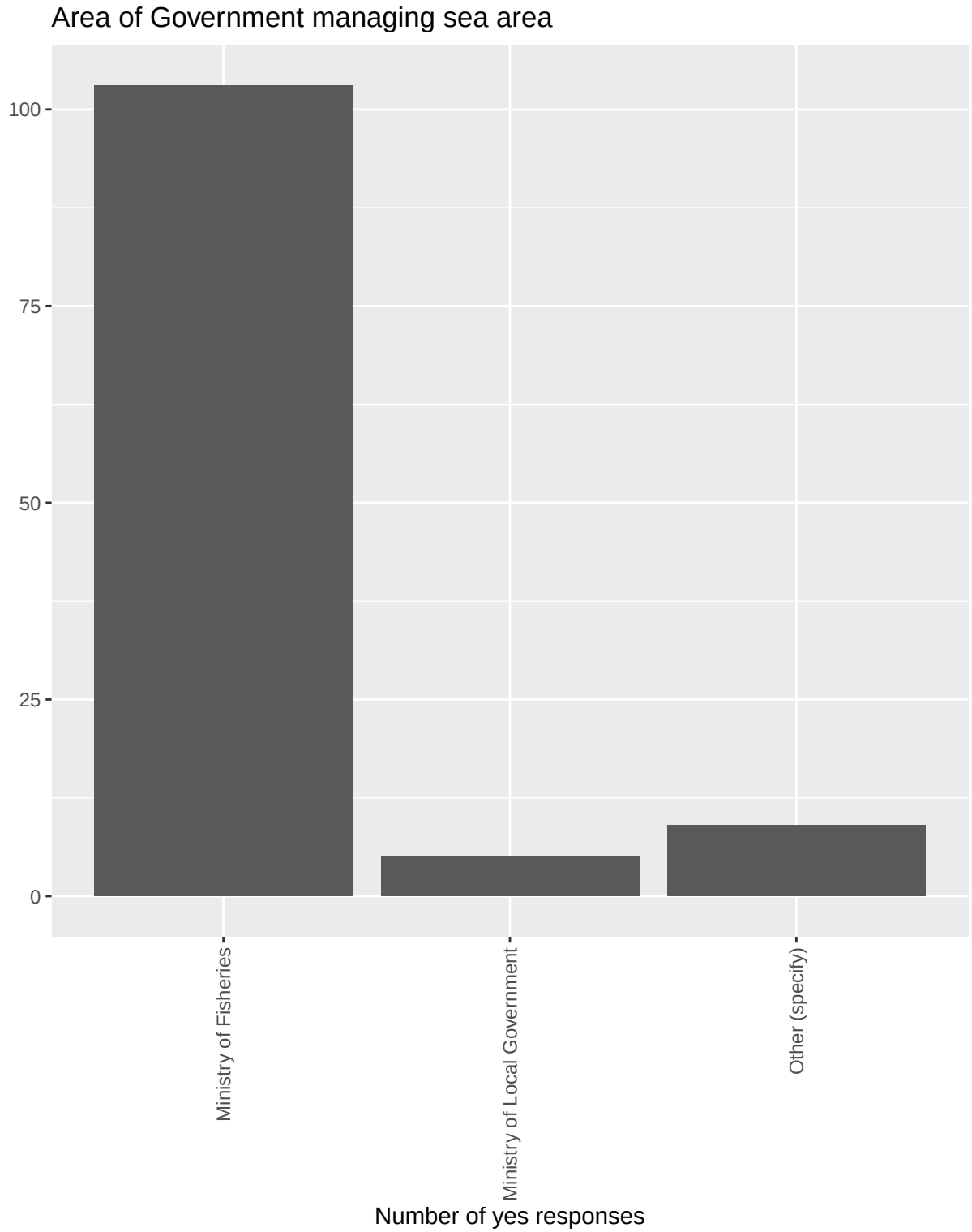

Important govt rule to access fish
15
10
5
0
Areas that are permanently closed to fishing/
Days/weeks/seasons when people are not allowe
Other (specify)
Permission
The minimum or maximum size of fishes fished
The total amount of a fish or seafood that ca
Which species, gears, or methods are permitte
Number of yes responses

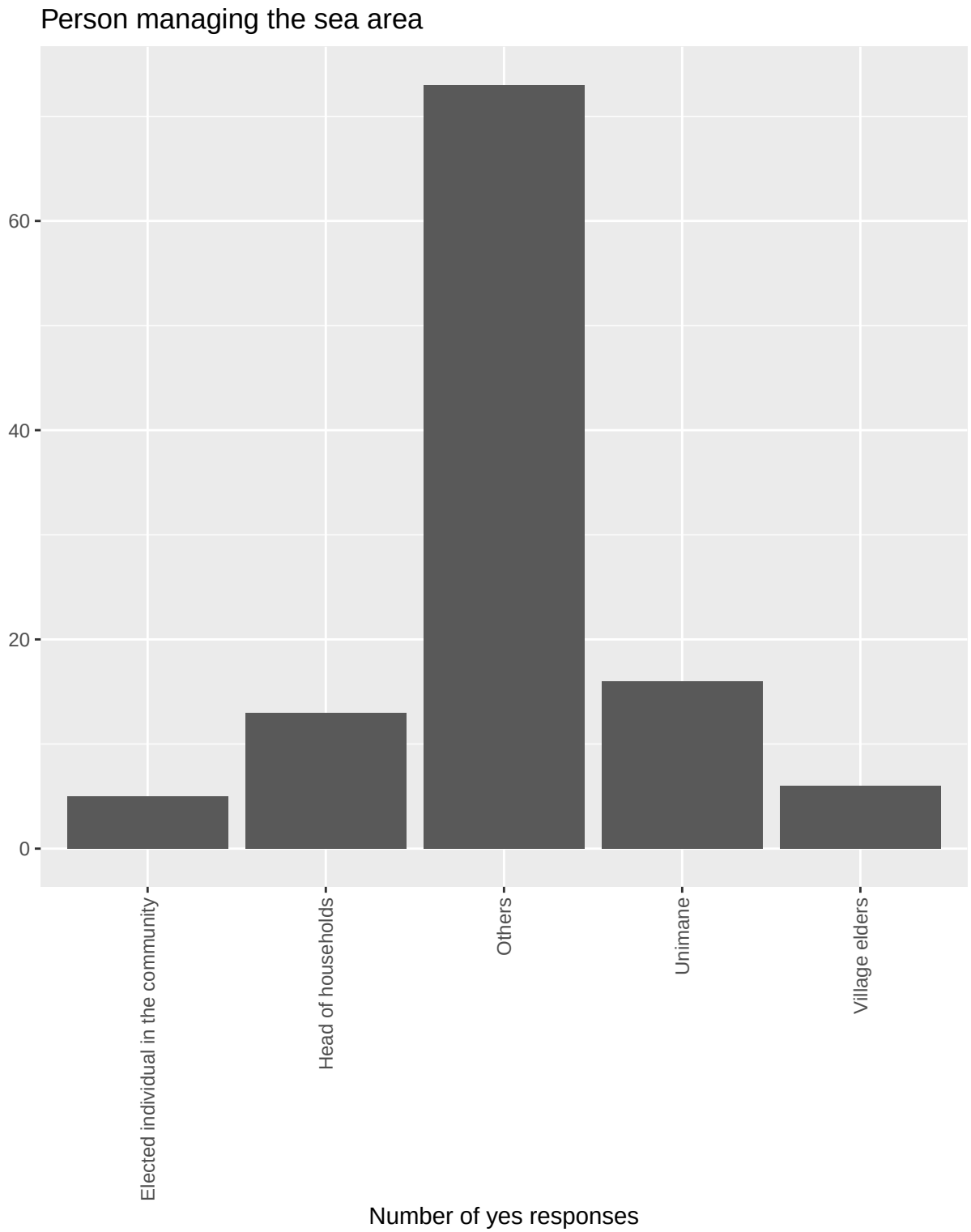

Important govt rule to maintain fish stock
15
10
5
0
Areas that are permanently closed to
Days/weeks/seasons when people are no
Other (specify)
Permission
Residence
The minimum or maximum size of fishes
The total amount of a fish or seafood
Which species, gears, or methods are
Number of yes responses

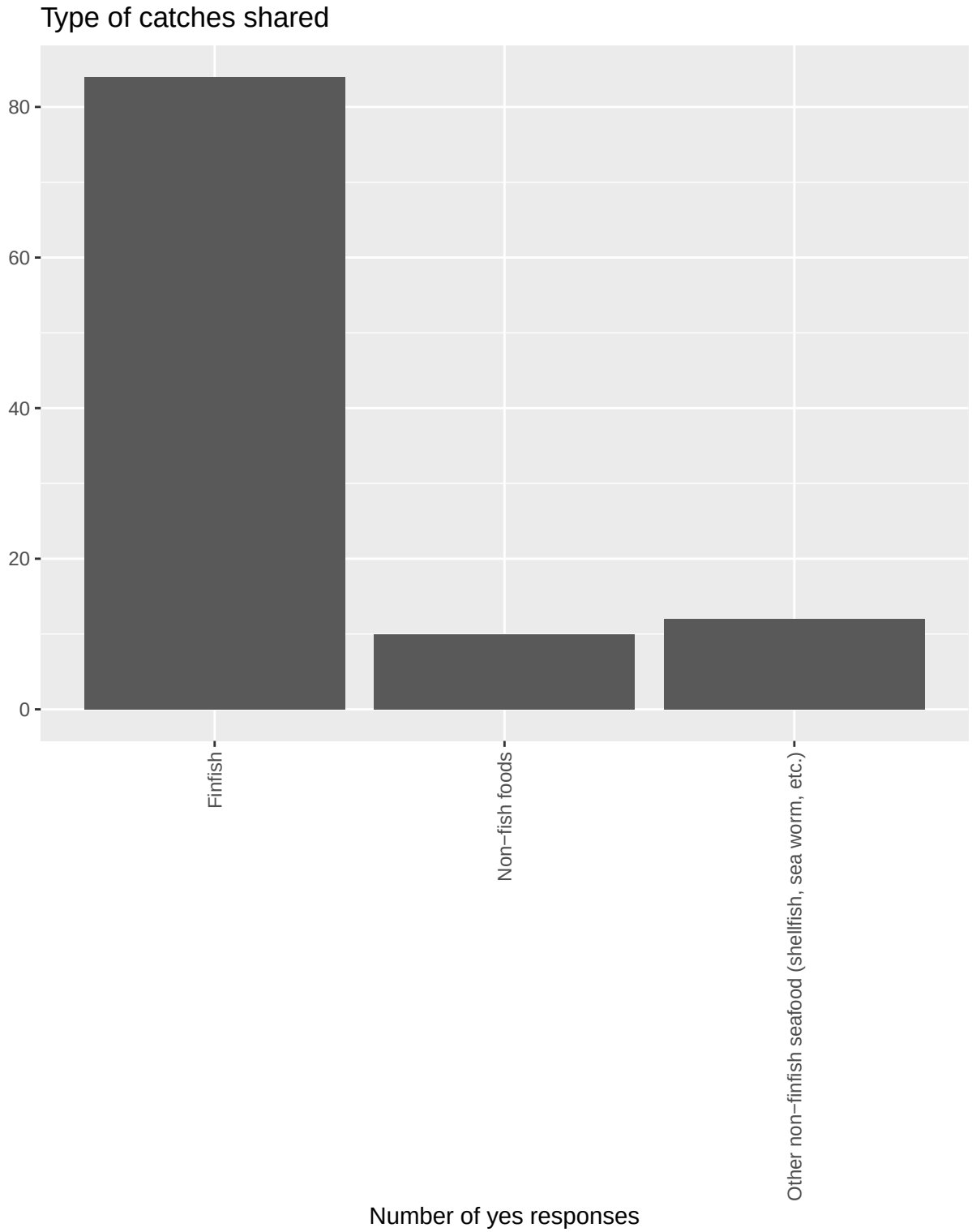

Penalties for not adhering to rules
40
20
0
Kiribati Government rules
Local community rules
Traditional or spiritual rules
Number of yes responses

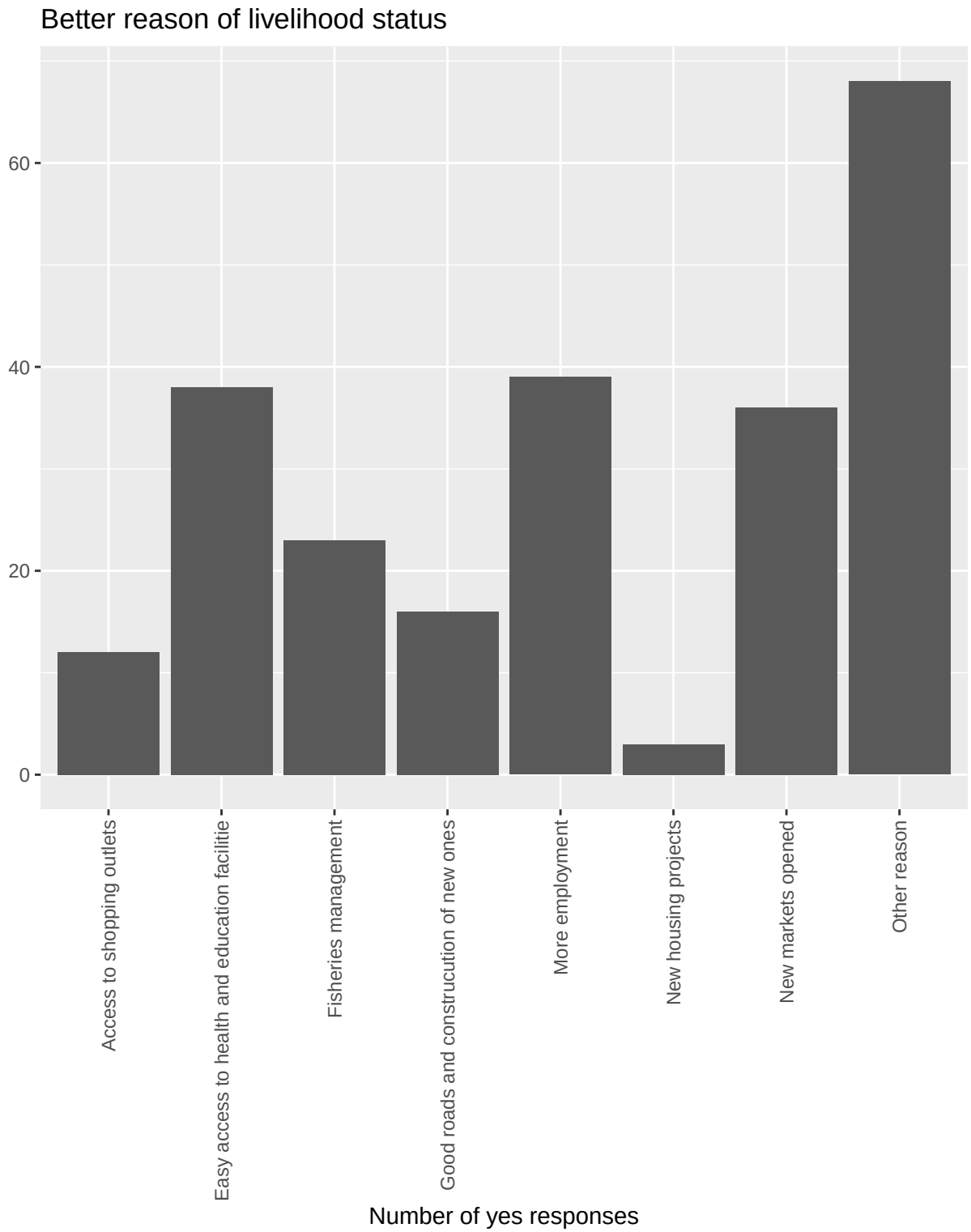

Conflicts between villages
6
4
2
0
Authority over areas of sea or lagoon space
Use of certain fishing or gleaning gears
Who may access fishing or gleaning areas
Number of yes responses

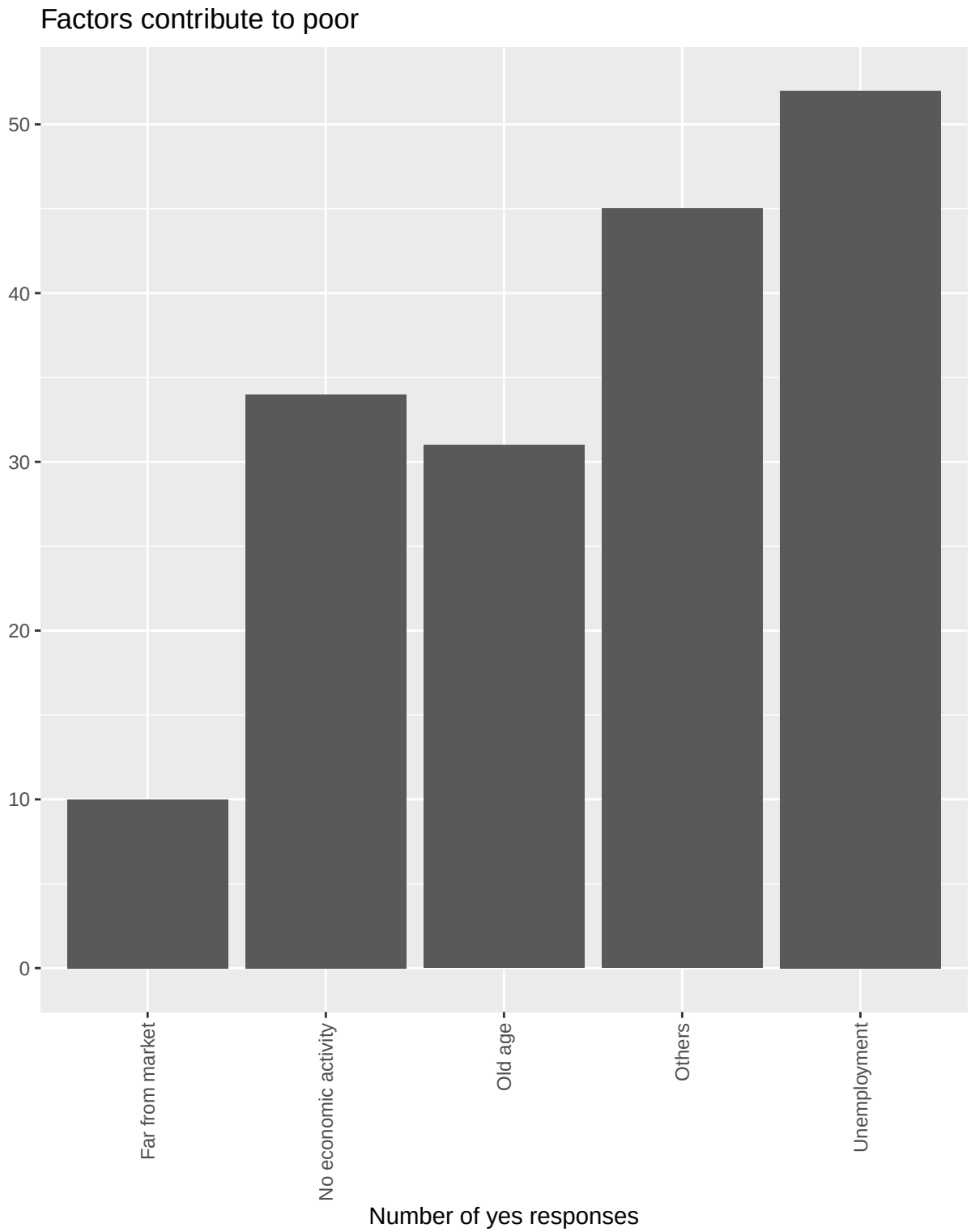

Event occurring the last 10 years
50
40
30
20
10
0
Coral bleaching event
Cyclone
Harmful algal bloom
Tsunami
Number of yes responses

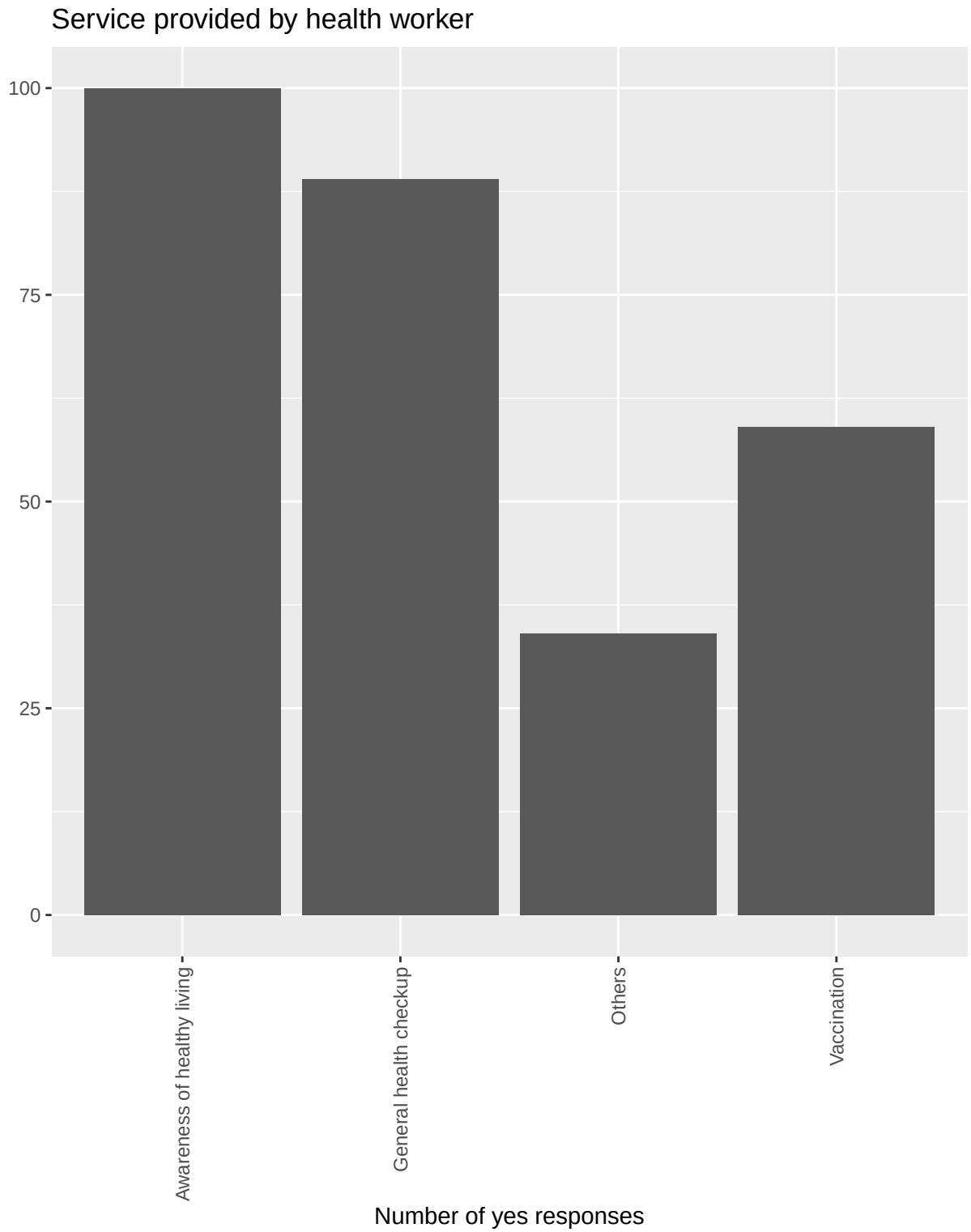

Area of Government managing sea area
100
75
50
25
0
Ministry of Fisheries
Ministry of Local Government
Other (specify)
Number of yes responses

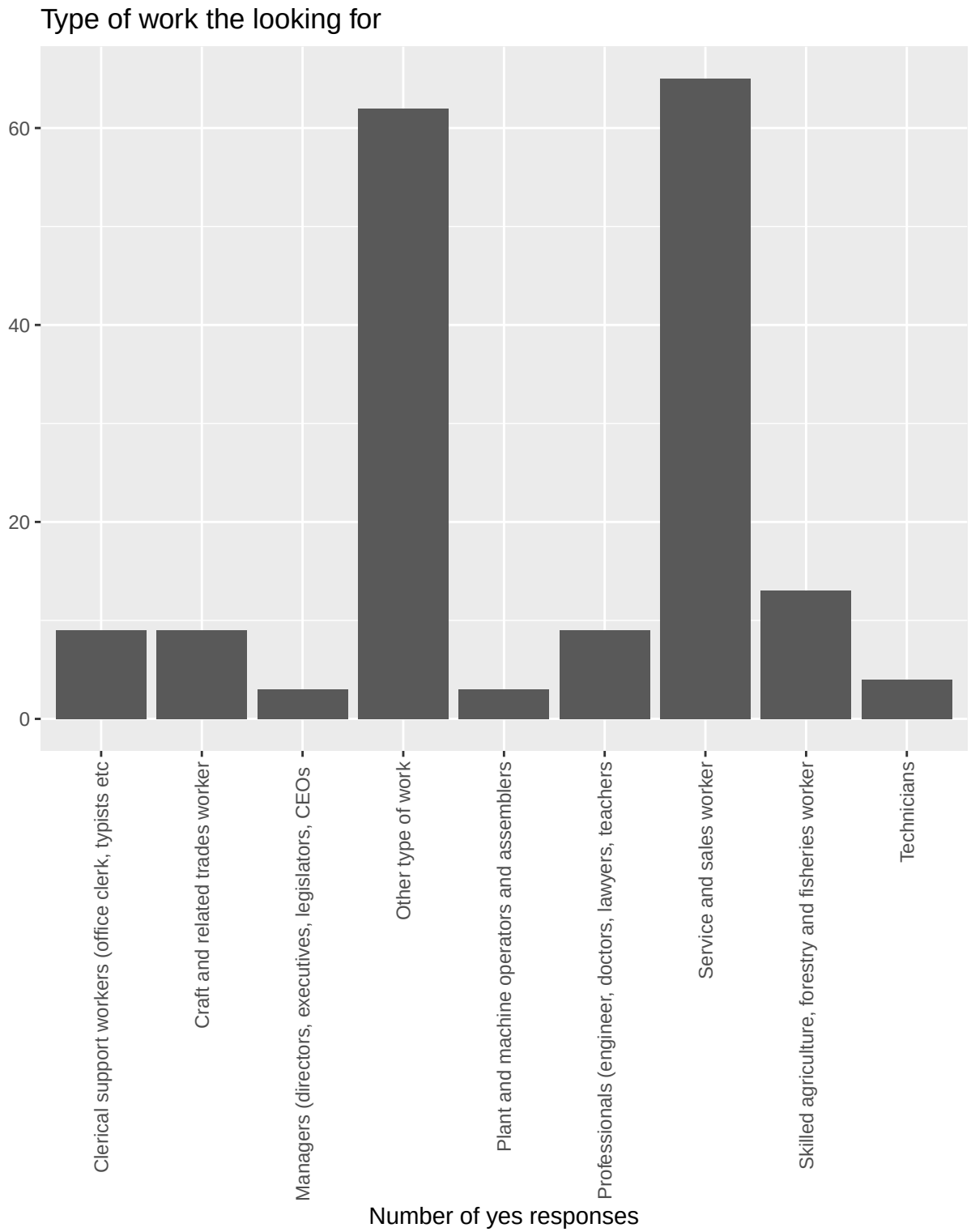

Person managing the sea area
60
40
20
0
Elected individual in the community
Head of households
Others
Unimane
Village elders
Number of yes responses

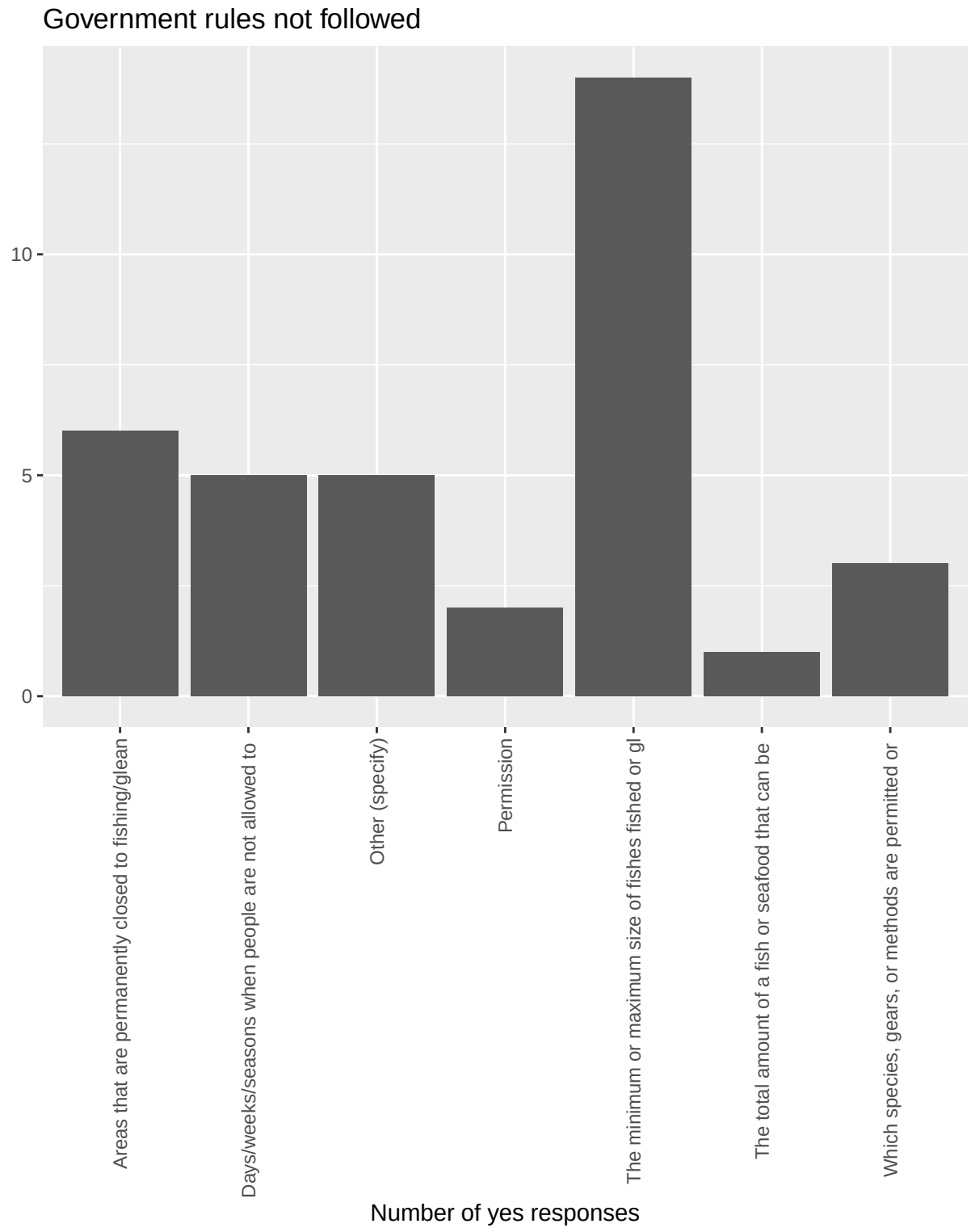

Type of catches shared
80
60
40
20
0
Finfish
Non−fish foods
Other non−finfish seafood (shellfish, sea worm, etc.)
Number of yes responses

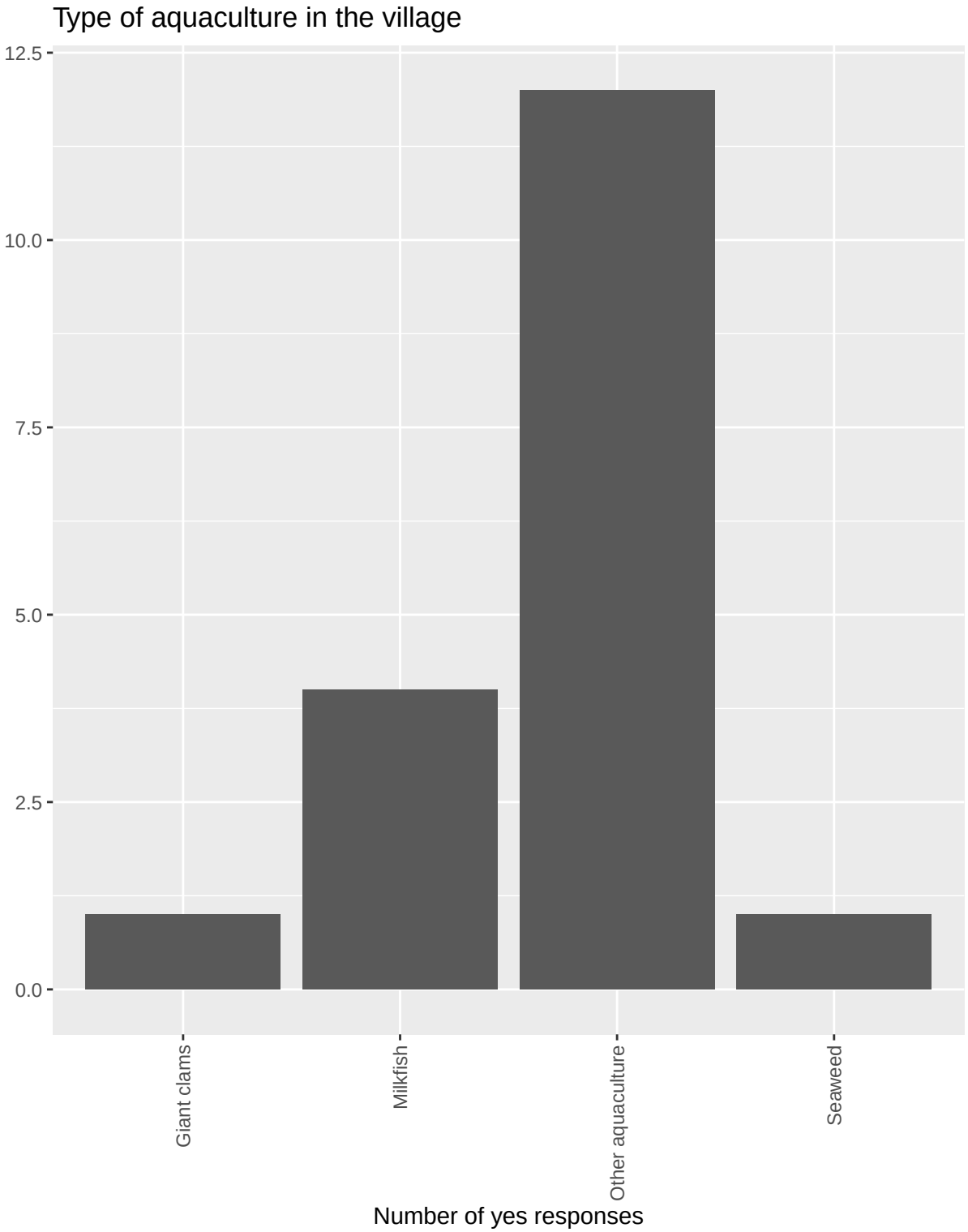

Better reason of livelihood status
60
40
20
0
Access to shopping outlets
Easy access to health and education facilitie
Fisheries management
Good roads and construction of new ones
More employment
New housing projects
New markets opened
Other reason
Number of yes responses

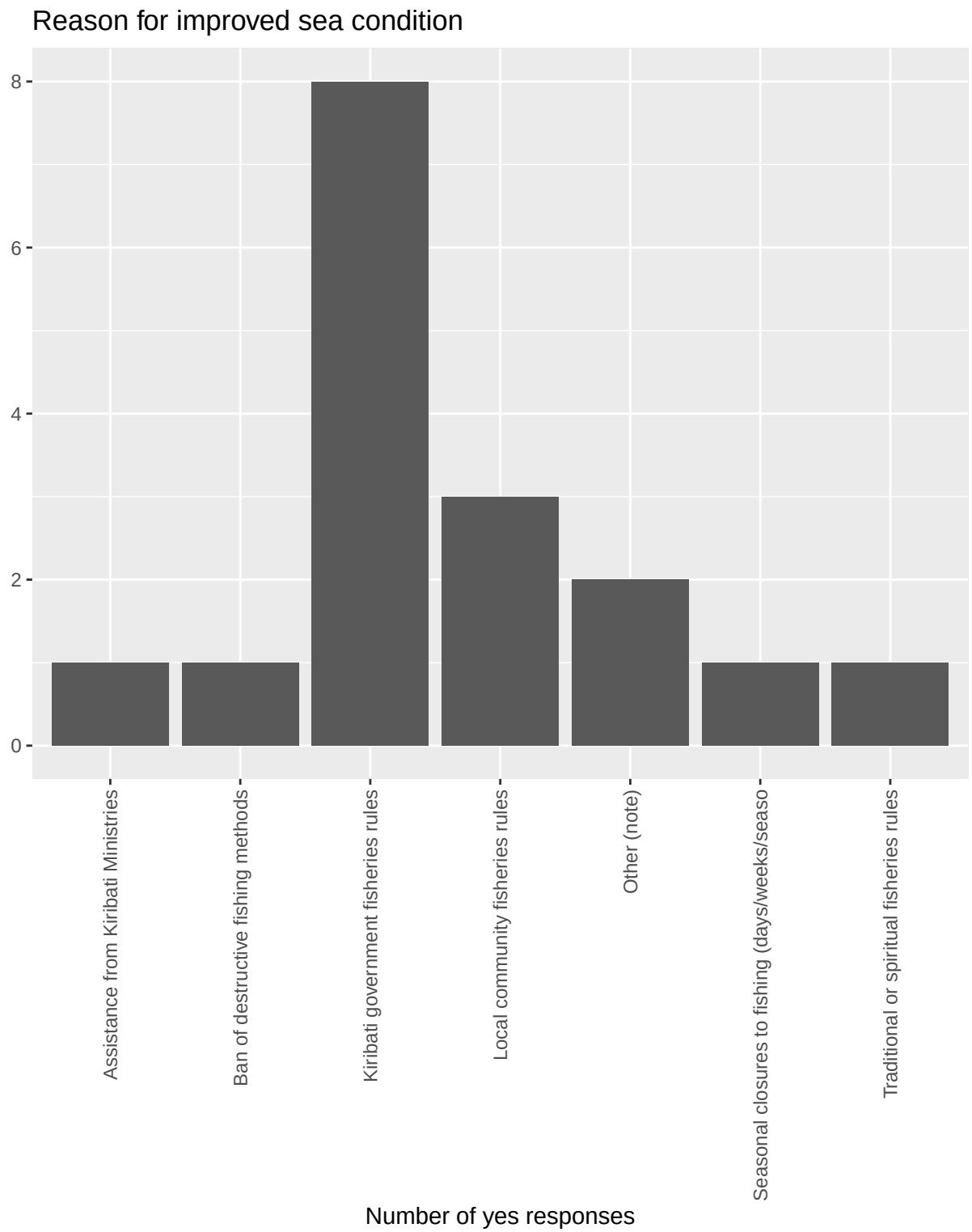

Factors contribute to poor
50
40
30
20
10
0
Far from market
No economic activity
Old age
Others
Unemployment
Number of yes responses

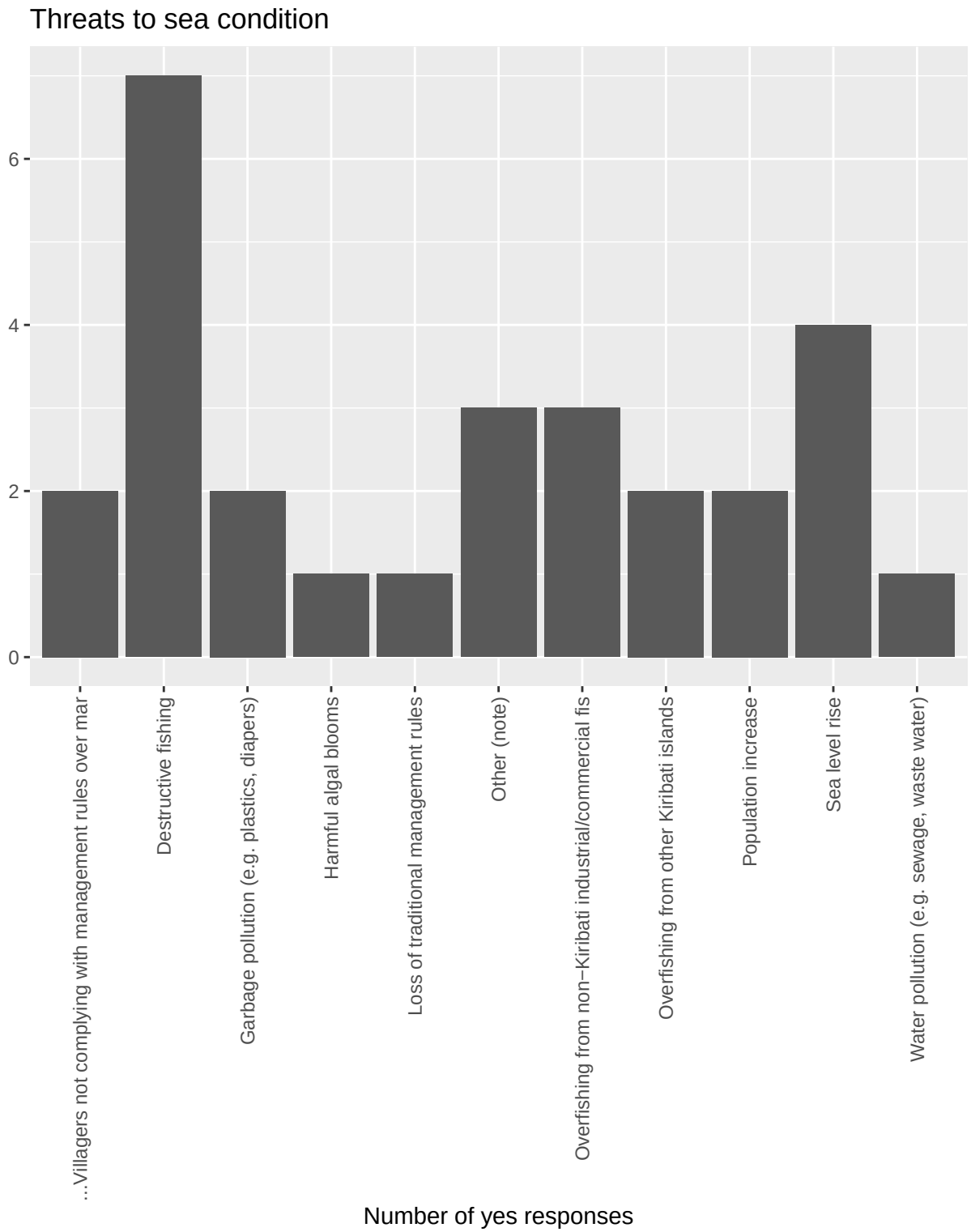

Service provided by health worker
100
75
50
25
0
Awareness of healthy living
General health checkup
Others
Vaccination
Number of yes responses

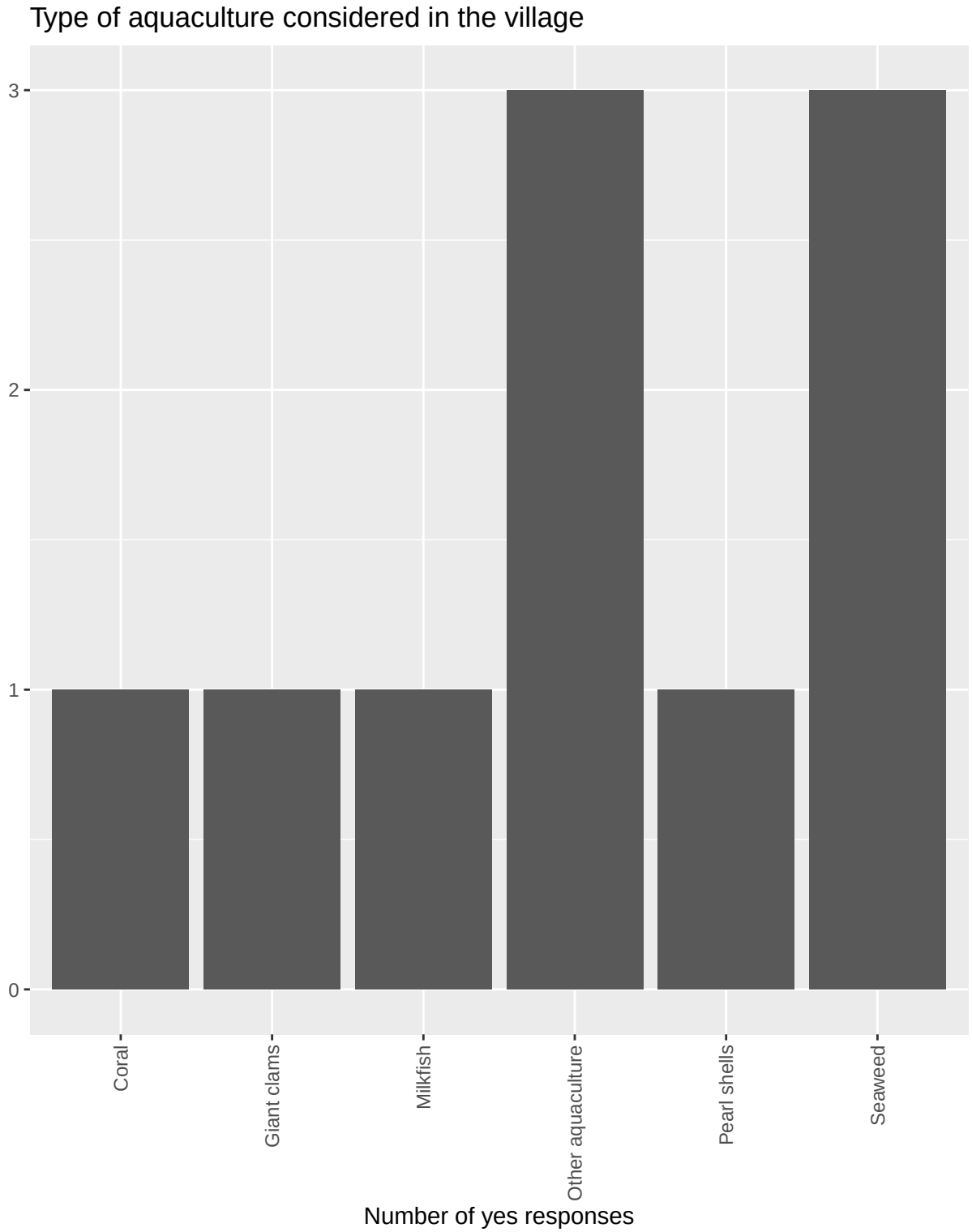

Type of work the looking for
60
40
20
0
Clerical support workers (office clerk, typists etc
Craft and related trades worker
Managers (directors, executives, legislators, CEOs
Other type of work
Plant and machine operators and assemblers
Professionals (engineer, doctors, lawyers, teachers
Service and sales worker
Skilled agriculture, forestry and fisheries worker
Technicians
Number of yes responses

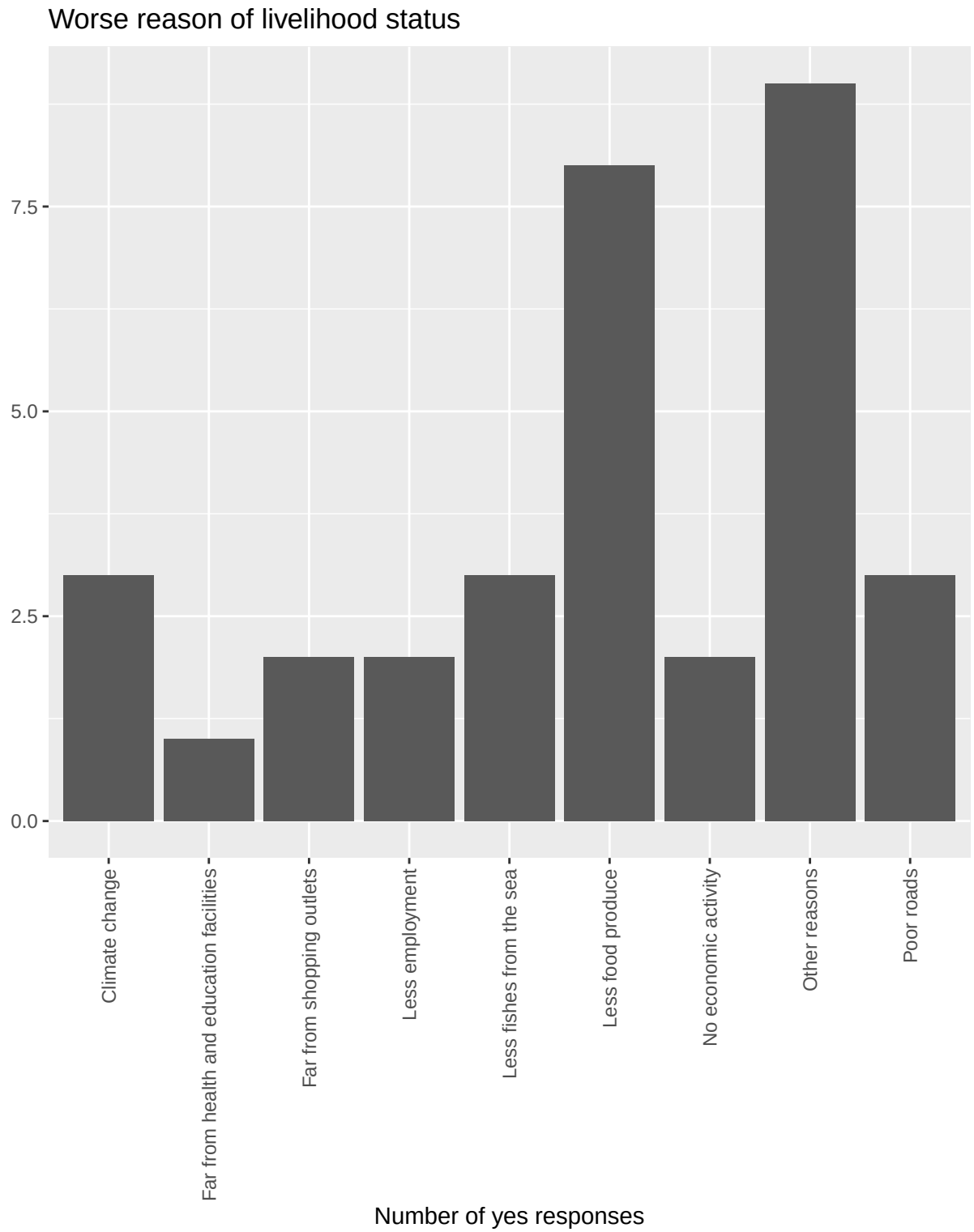

Government rules not followed
10
5
0
Areas that are permanently closed to fishing/glean
Days/weeks/seasons when people are not allowed to
Other (specify)
Permission
The minimum or maximum size of fishes fished or gl
The total amount of a fish or seafood that can be
Which species, gears, or methods are permitted or
Number of yes responses


Type of aquaculture in the village
12.5
10.0
7.5
5.0
2.5
0.0
Giant clams
Milkfish
Other aquaculture
Seaweed
Number of yes responses


Reason for improved sea condition
8
6
4
2
0
Assistance from Kiribati Ministries
Ban of destructive fishing methods
Kiribati government fisheries rules
Local community fisheries rules
Other (note)
Seasonal closures to fishing (days/weeks/seaso
Traditional or spiritual fisheries rules
Number of yes responses

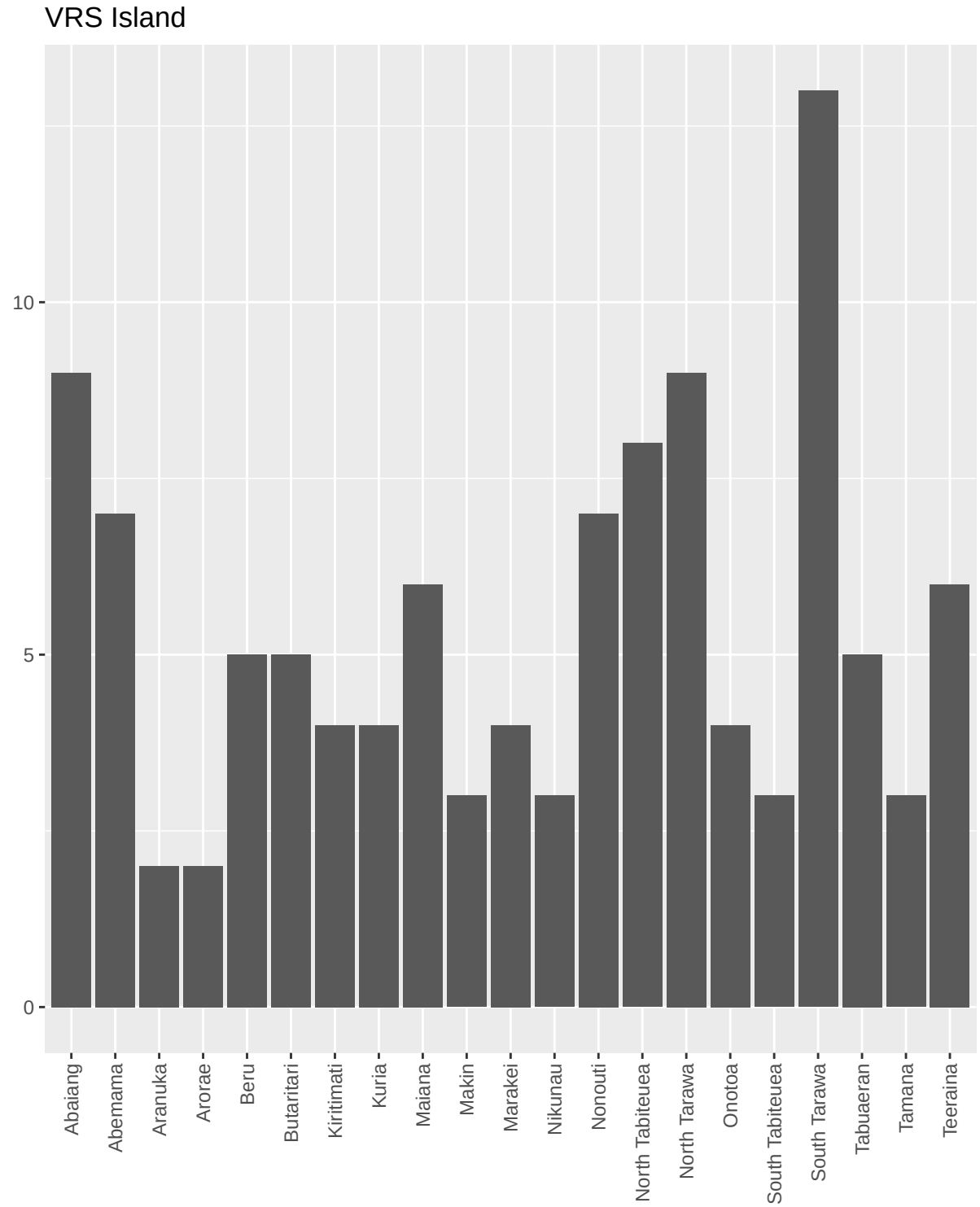

Threats to sea condition
6
4
2
0
...Villagers not complying with management rules over mar
Destructive fishing
Garbage pollution (e.g. plastics, diapers)
Harmful algal blooms
Loss of traditional management rules
Other (note)
Overfishing from non−Kiribati industrial/commercial fis
Overfishing from other Kiribati islands
Population increase
Sea level rise
Water pollution (e.g. sewage, waste water)
Number of yes responses

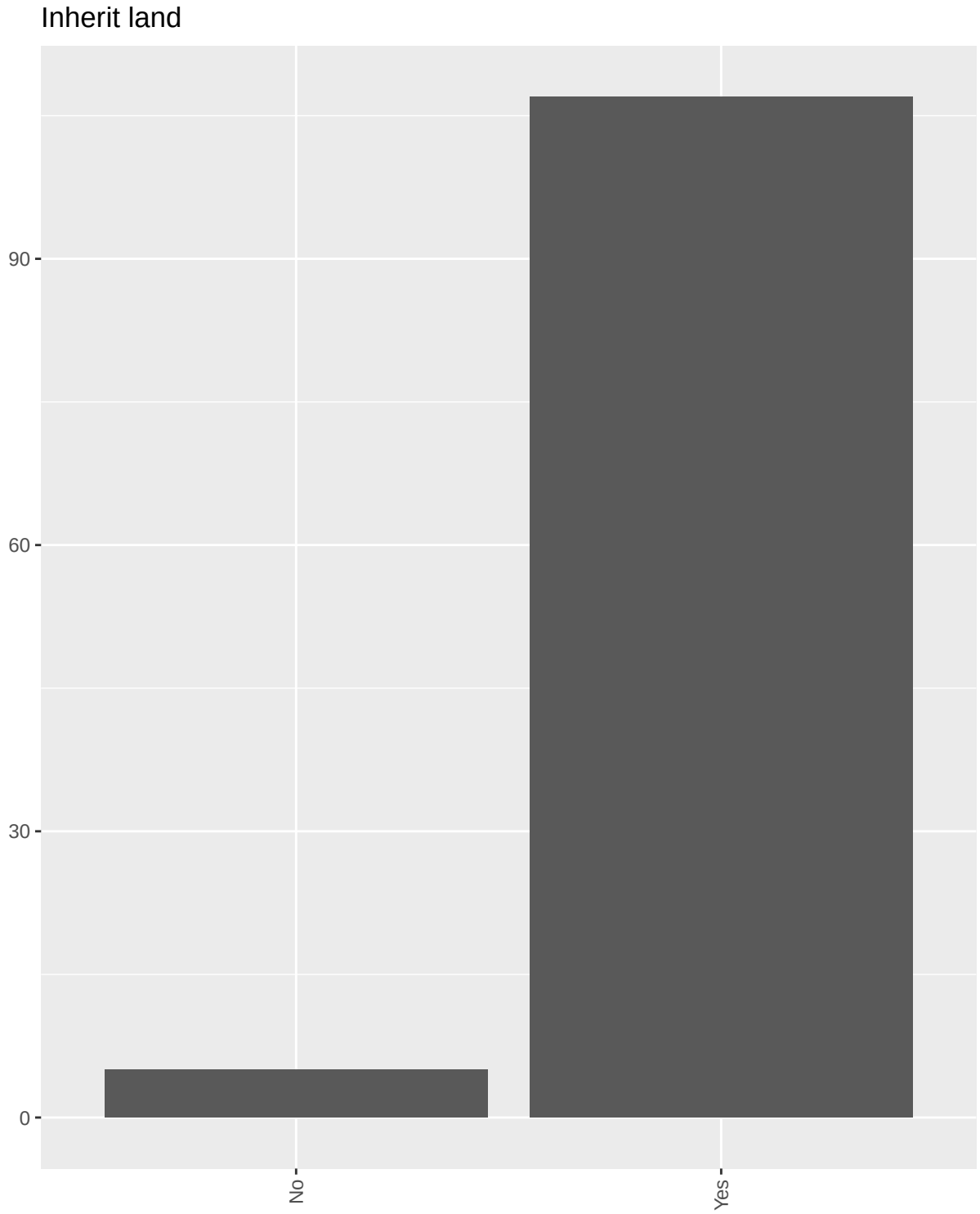

Type of aquaculture considered in the village
3
2
1
0
Coral
Giant clams
Milkfish
Other aquaculture
Pearl shells
Seaweed
Number of yes responses

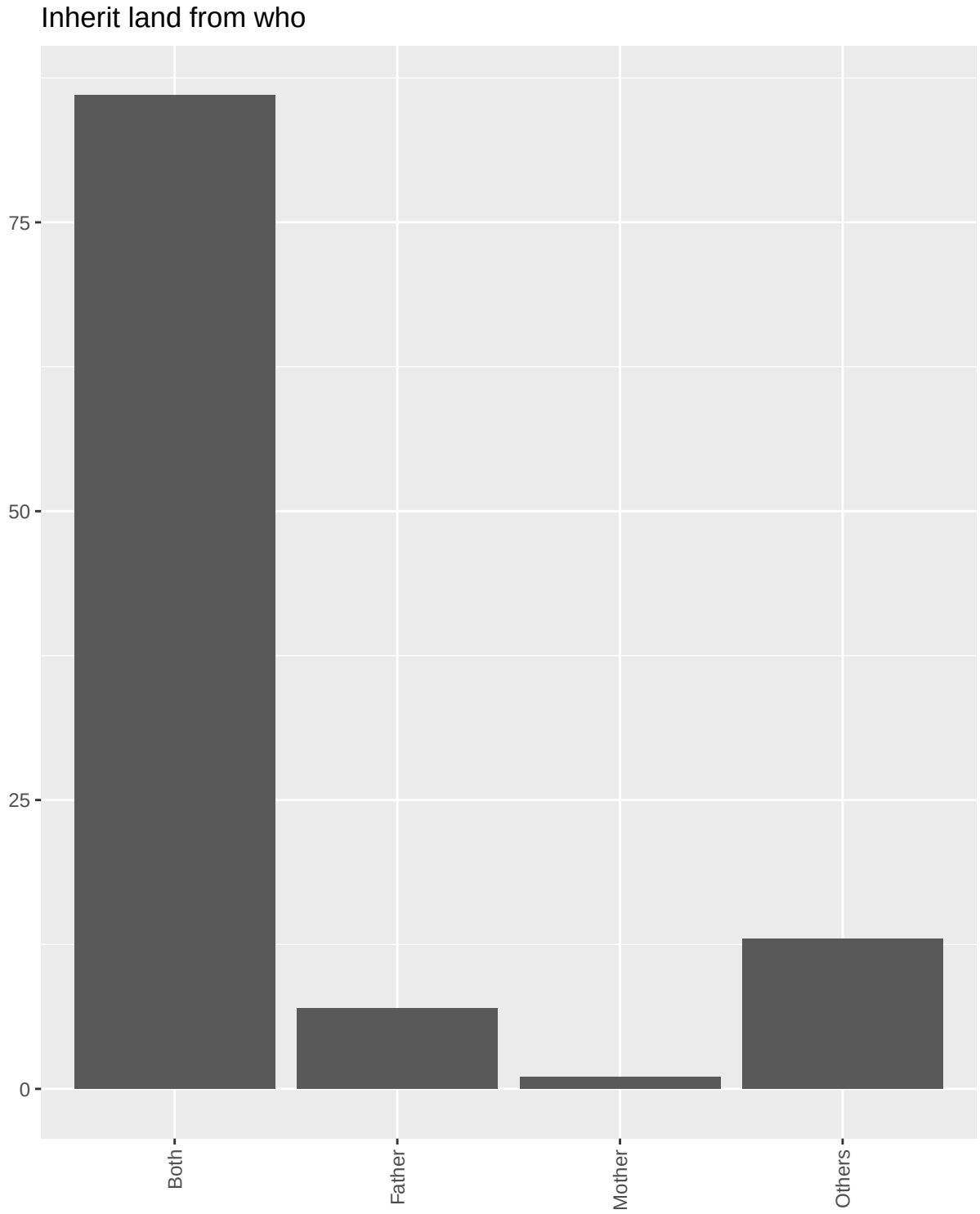

Worse reason of livelihood status
7.5
5.0
2.5
0.0
Climate change
Far from health and education facilities
Far from shopping outlets
Less employment
Less fishes from the sea
Less food produce
No economic activity
Other reasons
Poor roads
Number of yes responses

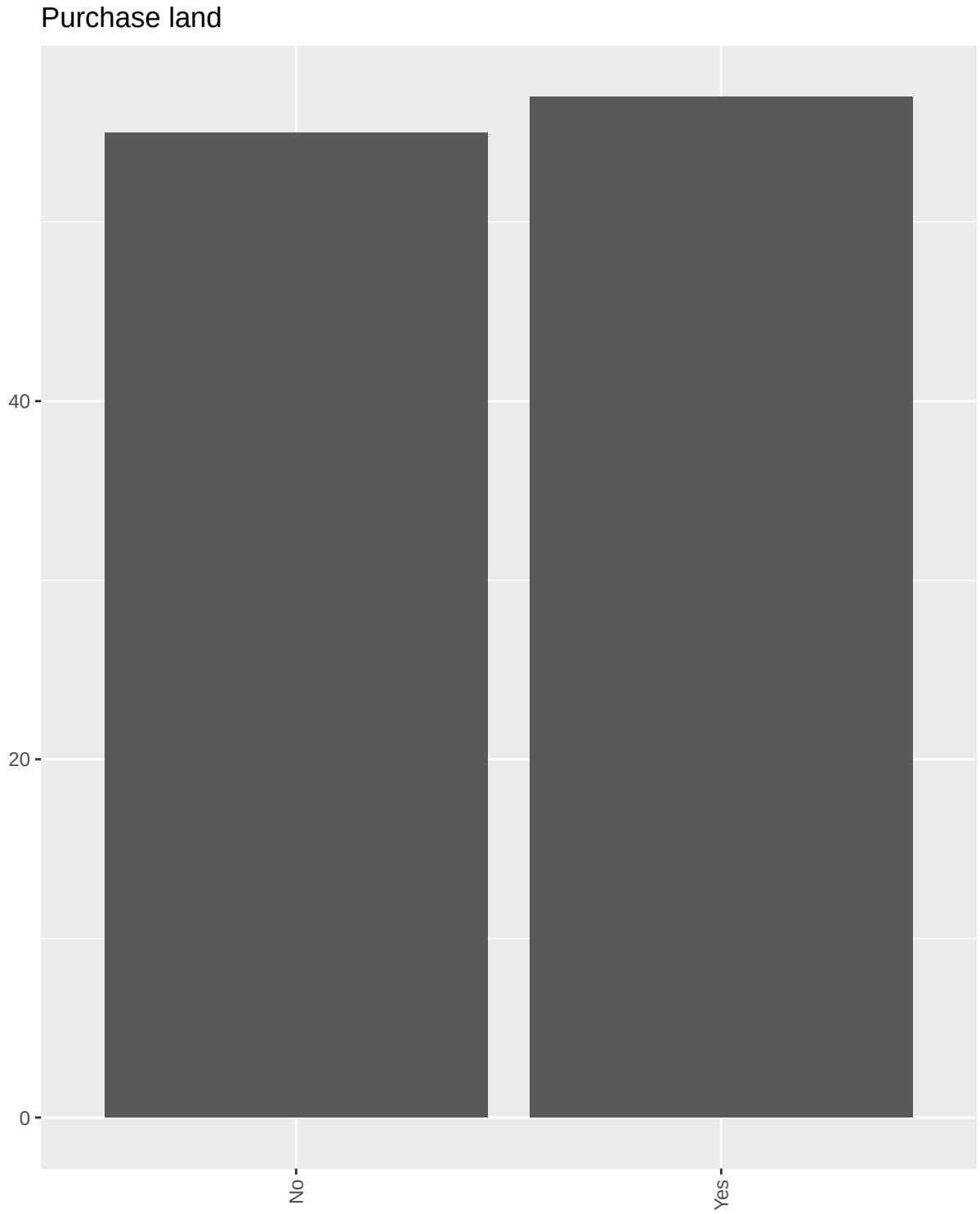
VRS continued...

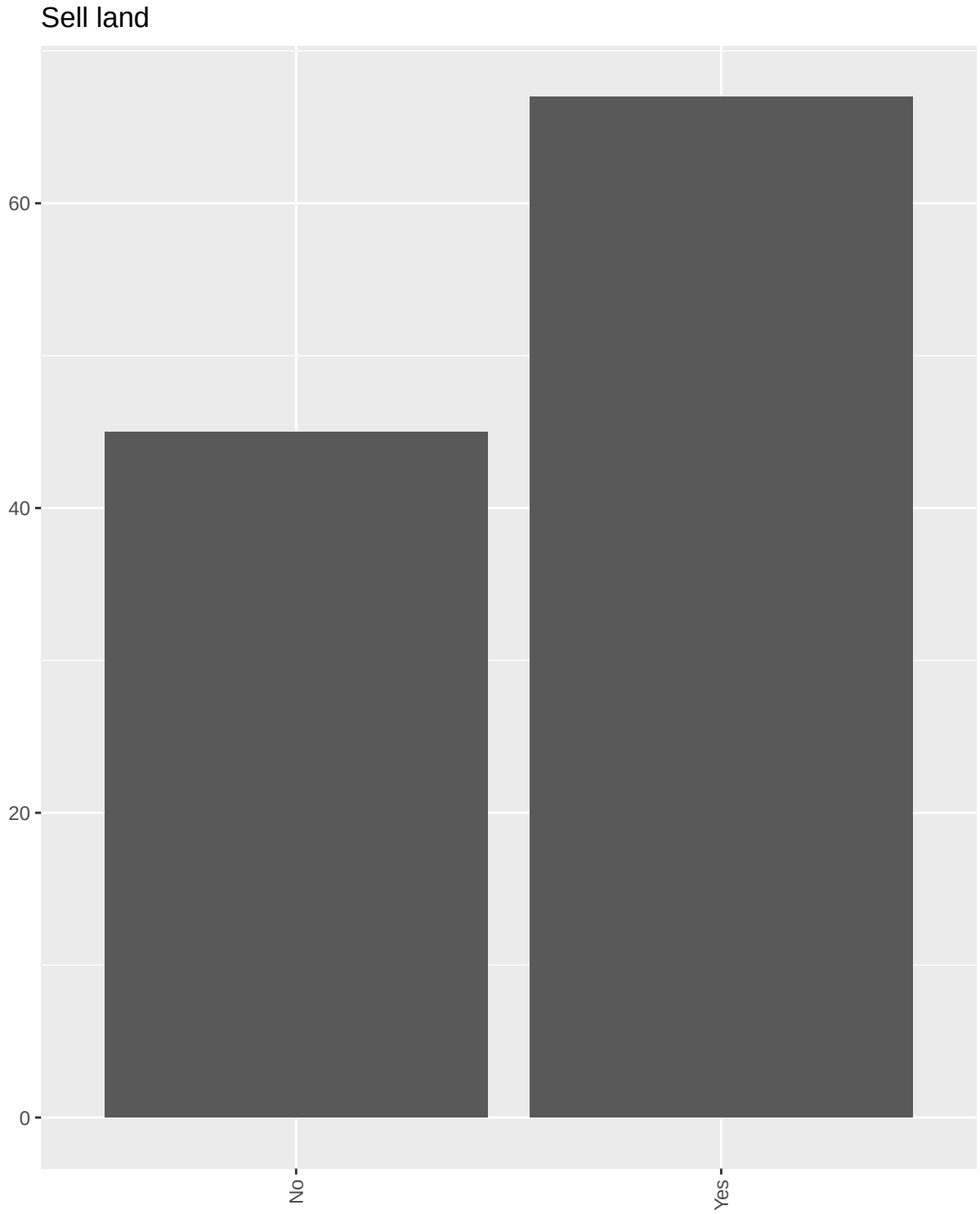
Single response questions

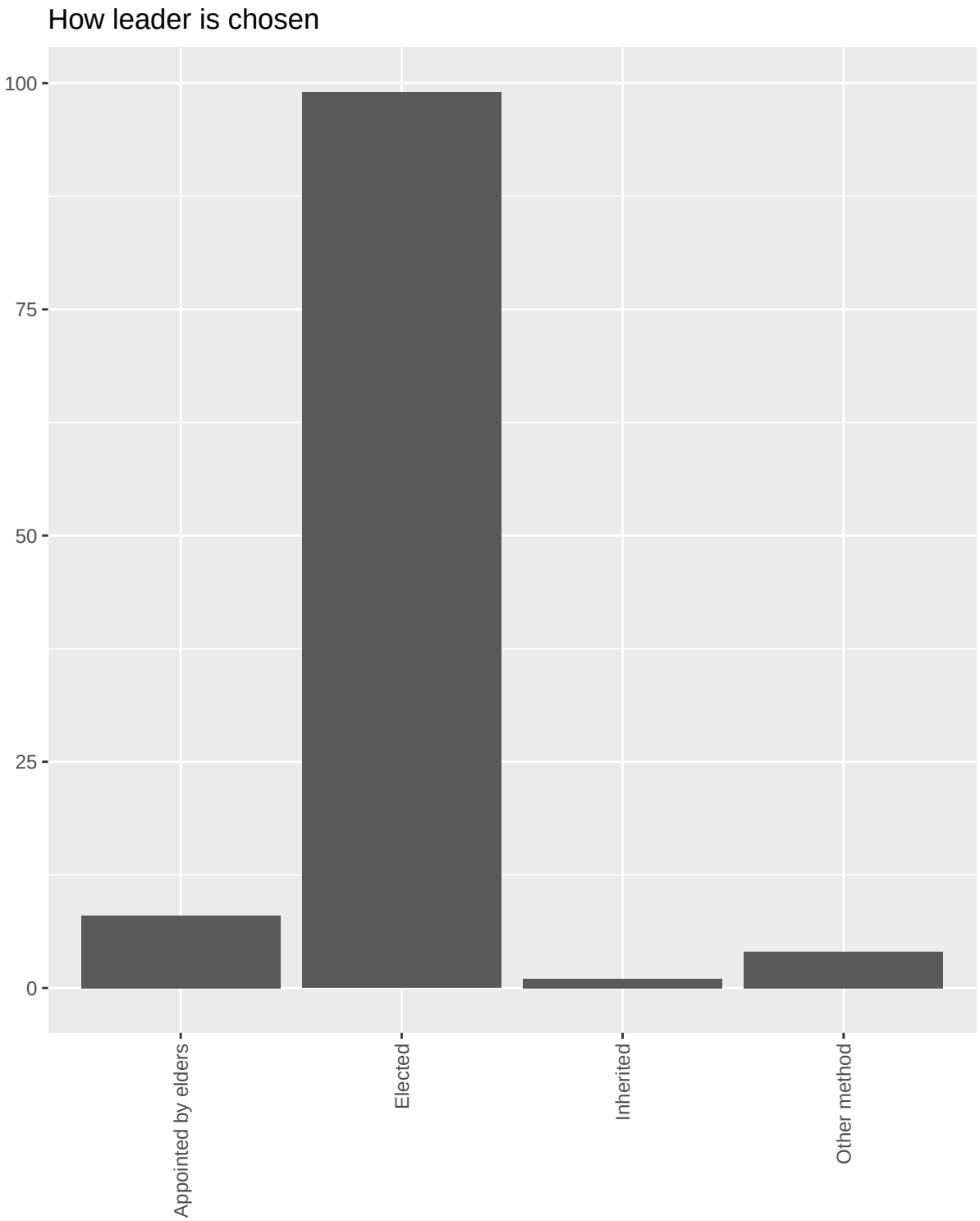


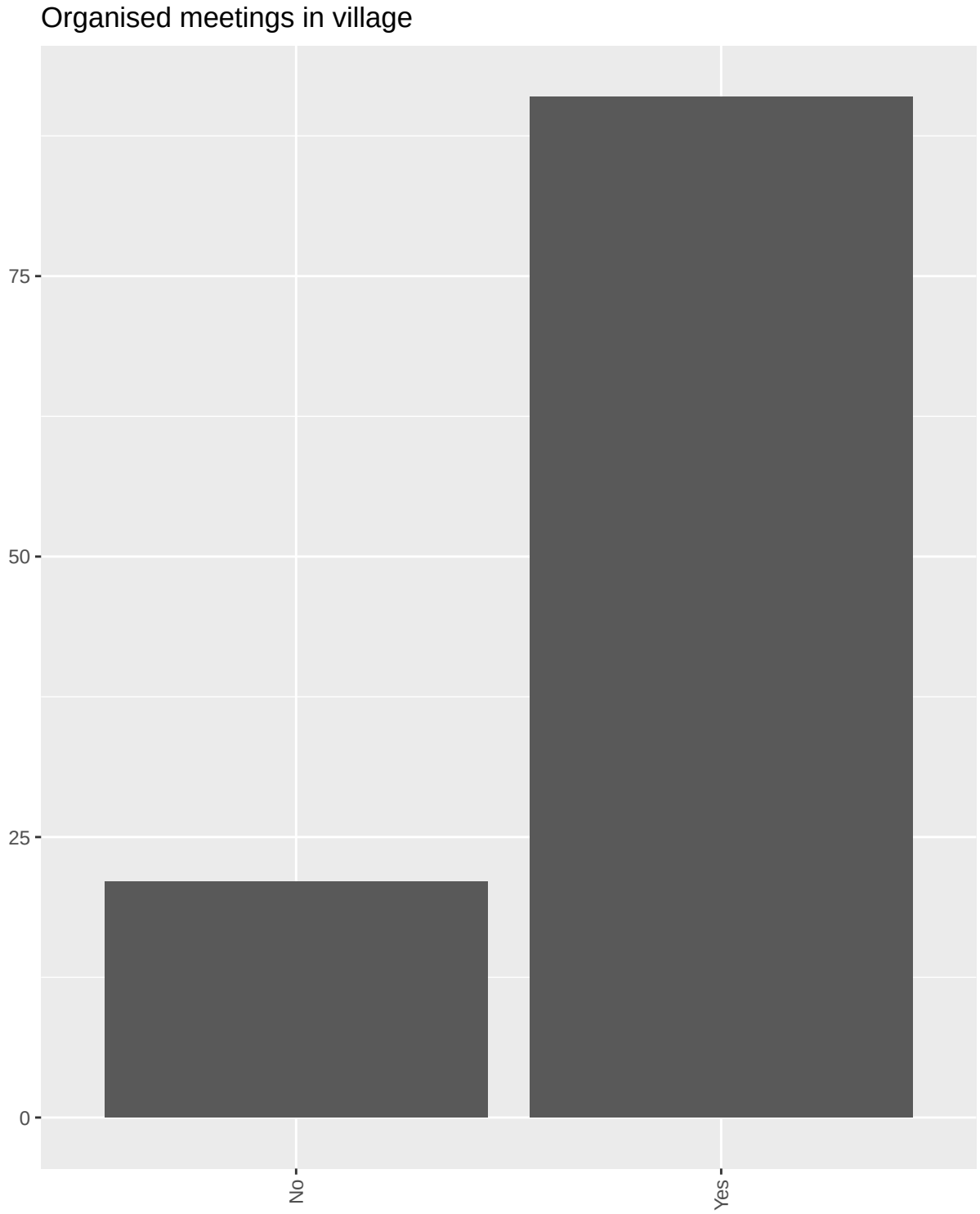

Inherit land
90
60
30
0
No
Yes

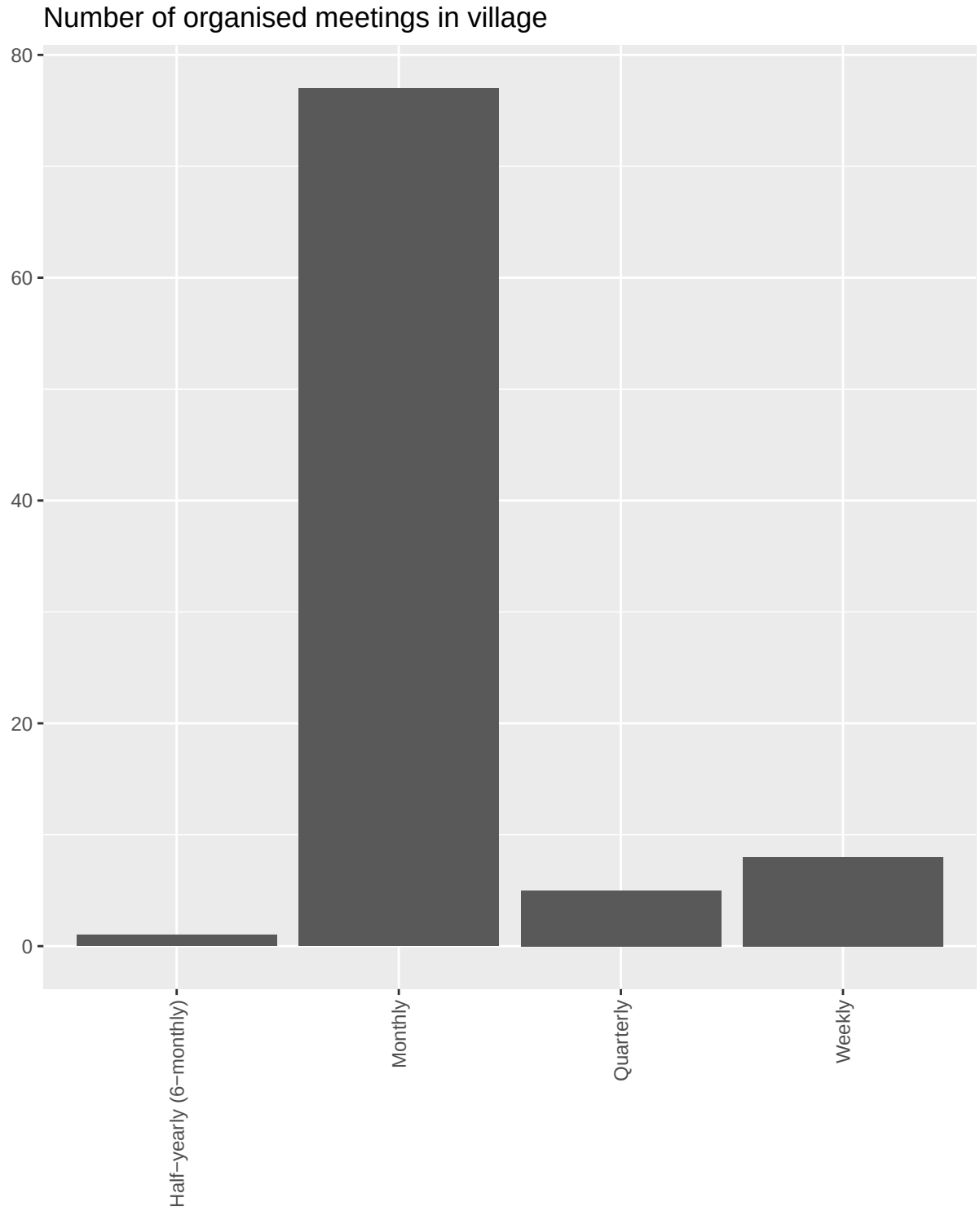

Inherit land from who
75
50
25
0
Both
Father
Mother
Others

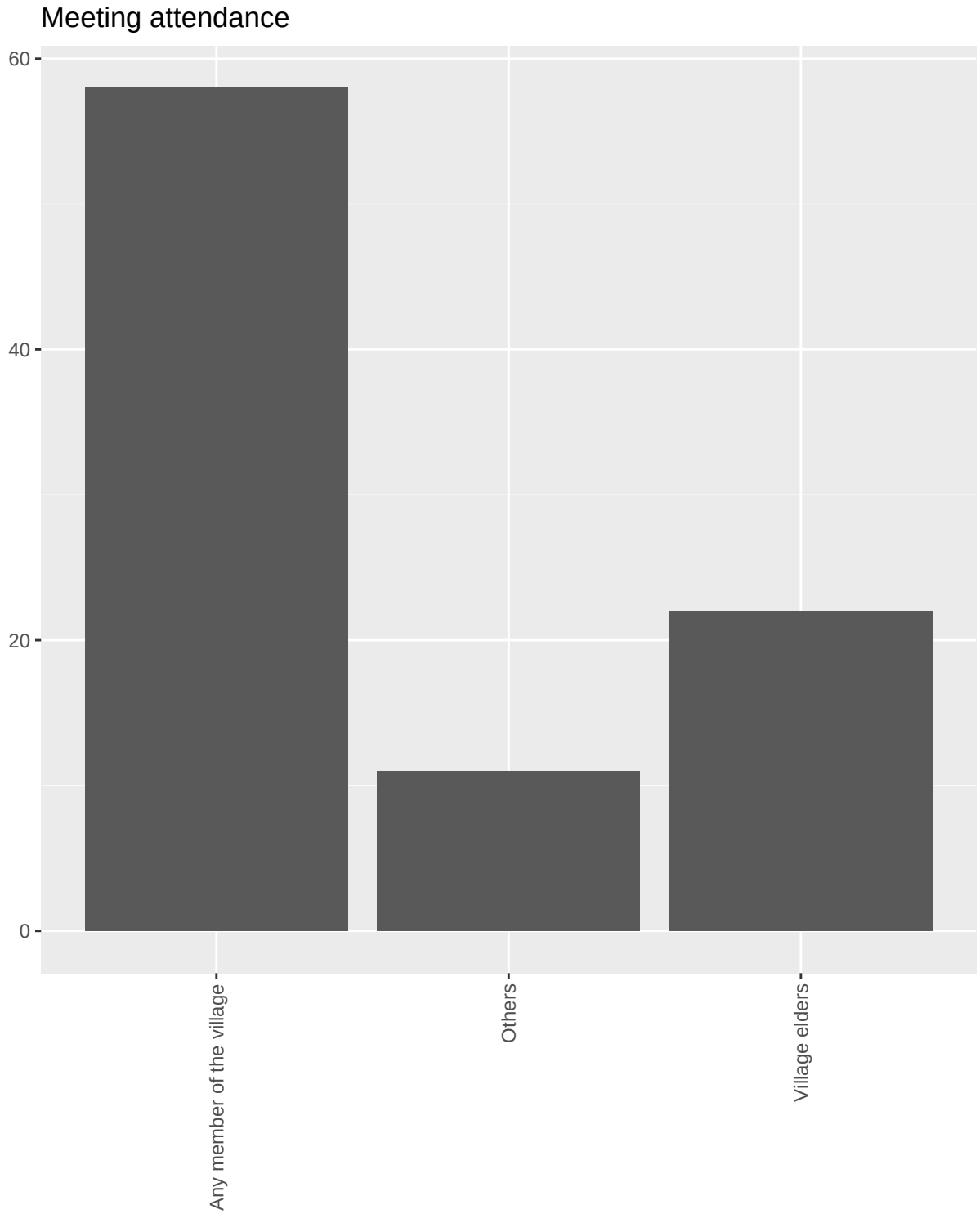

Purchase land
40
20
0
No
Yes

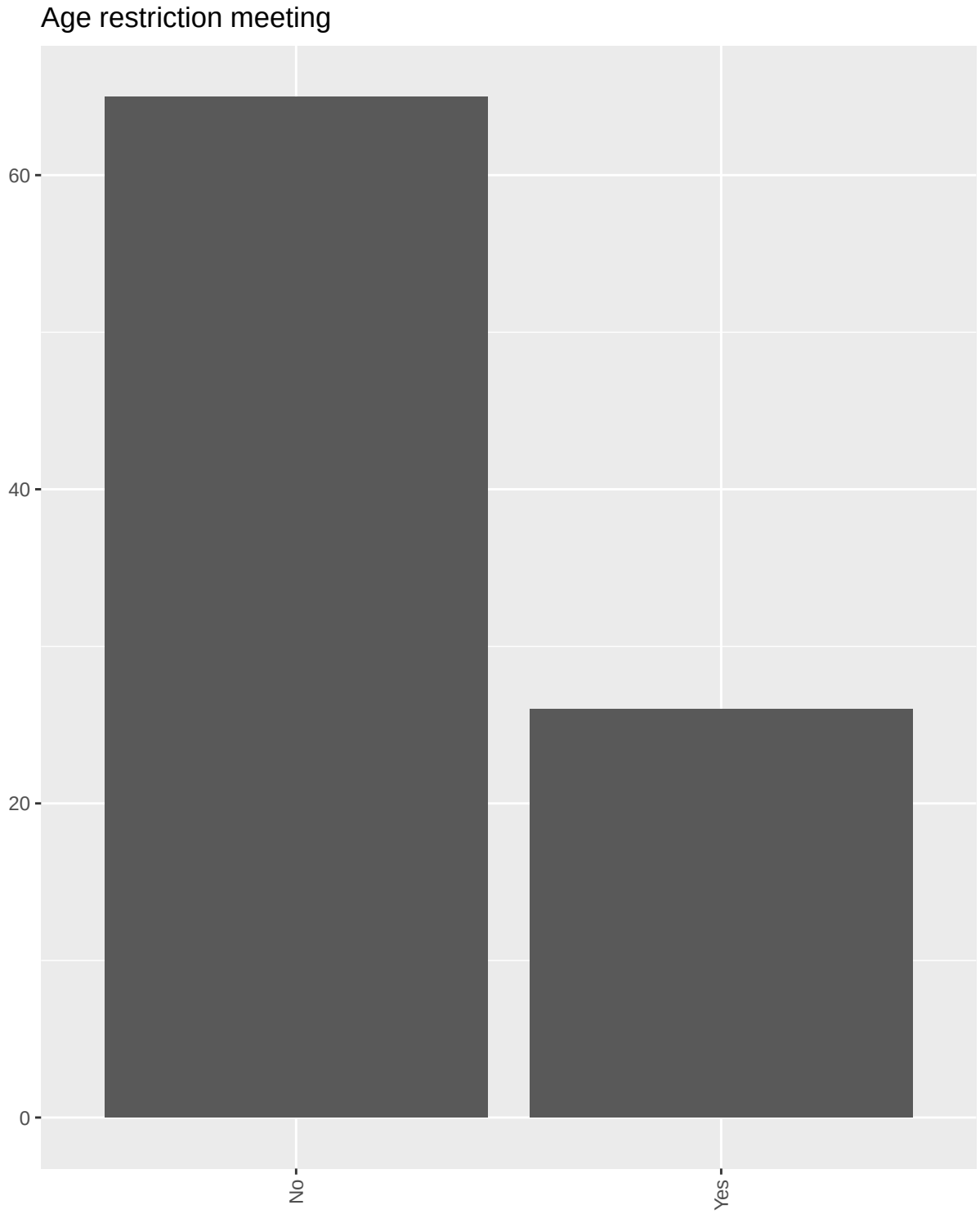

Sell land
60
40
20
0
No
Yes

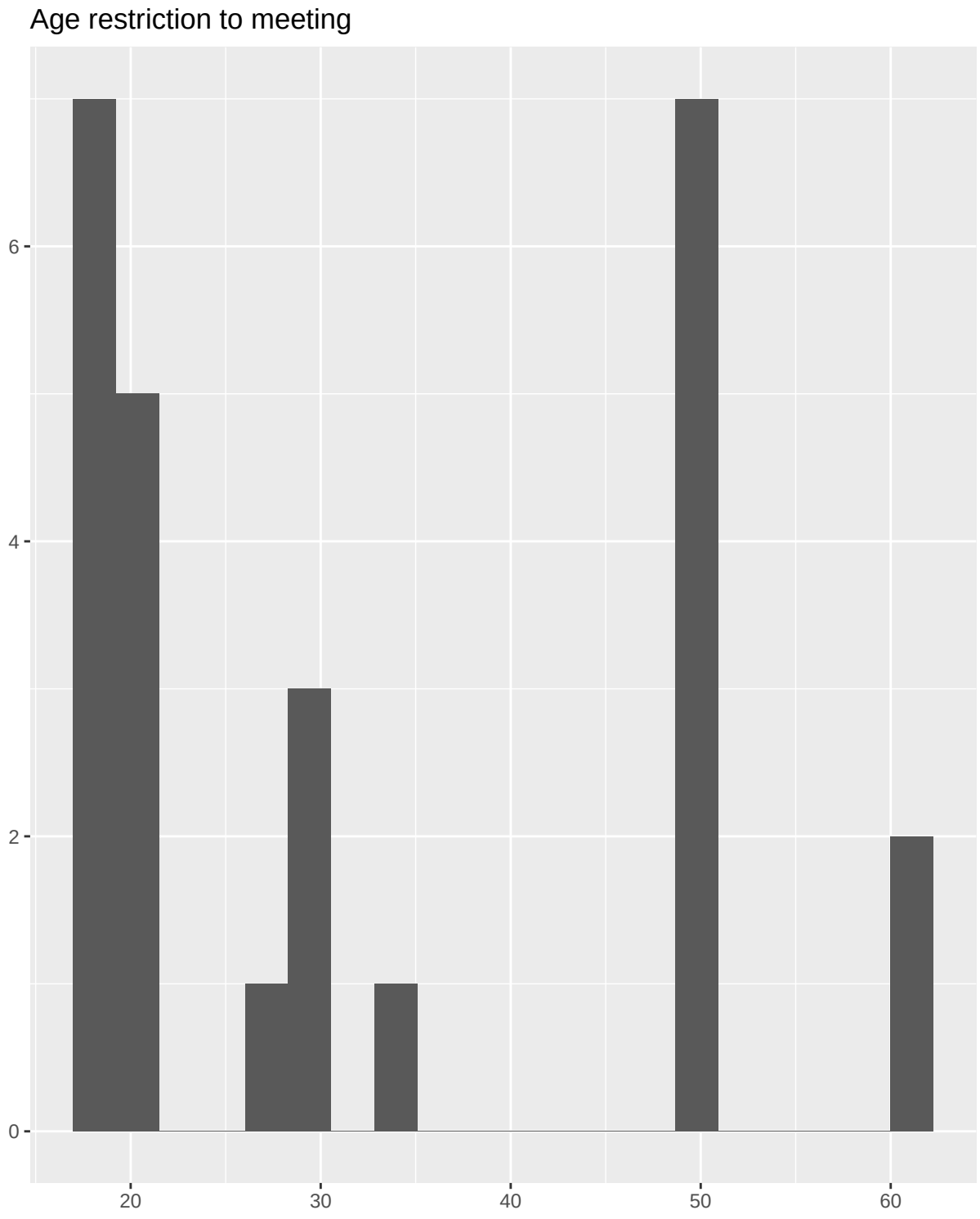

How leader is chosen
100
75
50
25
0
Appointed by elders
Elected
Inherited
Other method

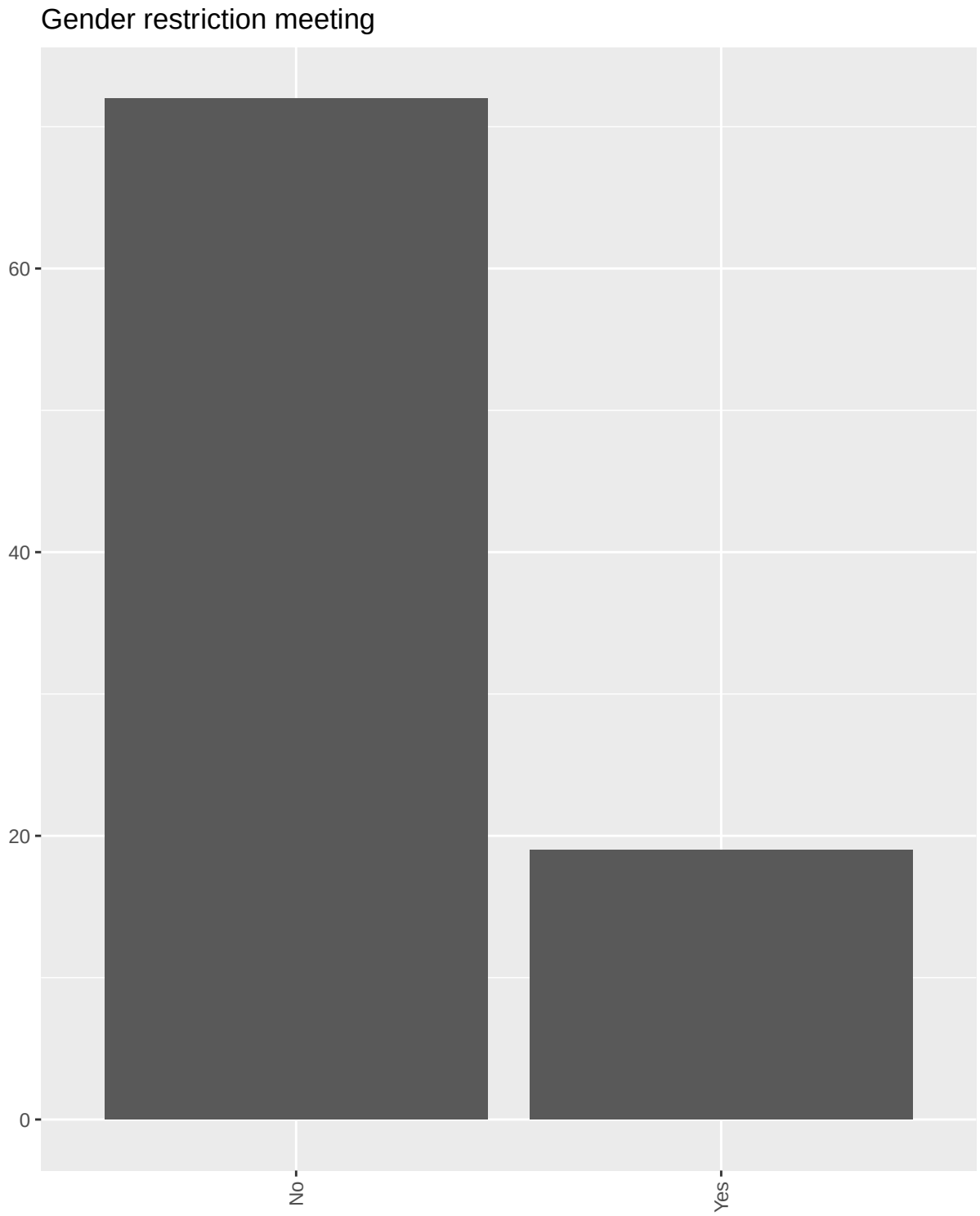

Organised meetings in village
75
50
25
0
No
Yes

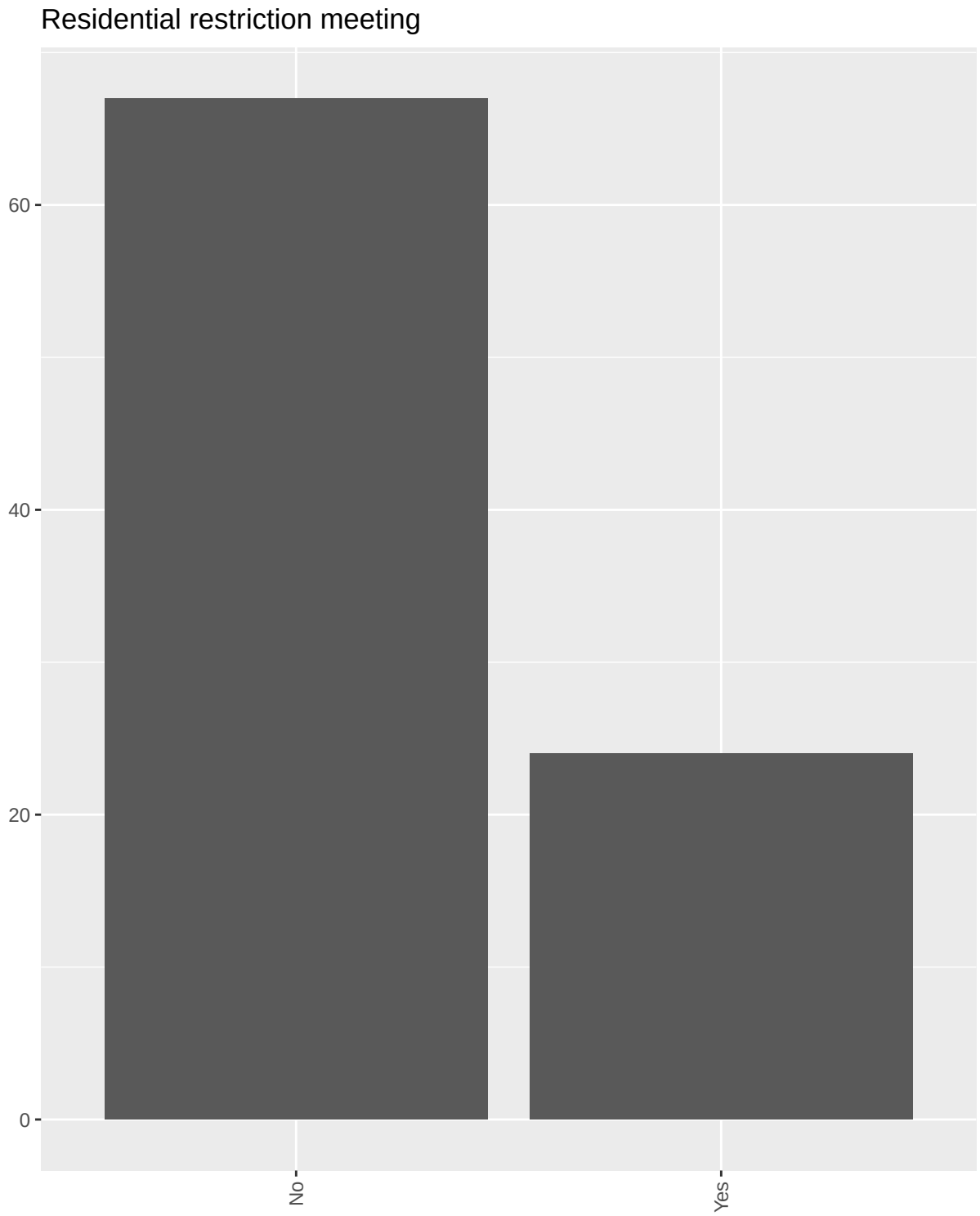

Number of organised meetings in village
80
60
40
20
0
Half−yearly (6−monthly)
Monthly
Quarterly
Weekly

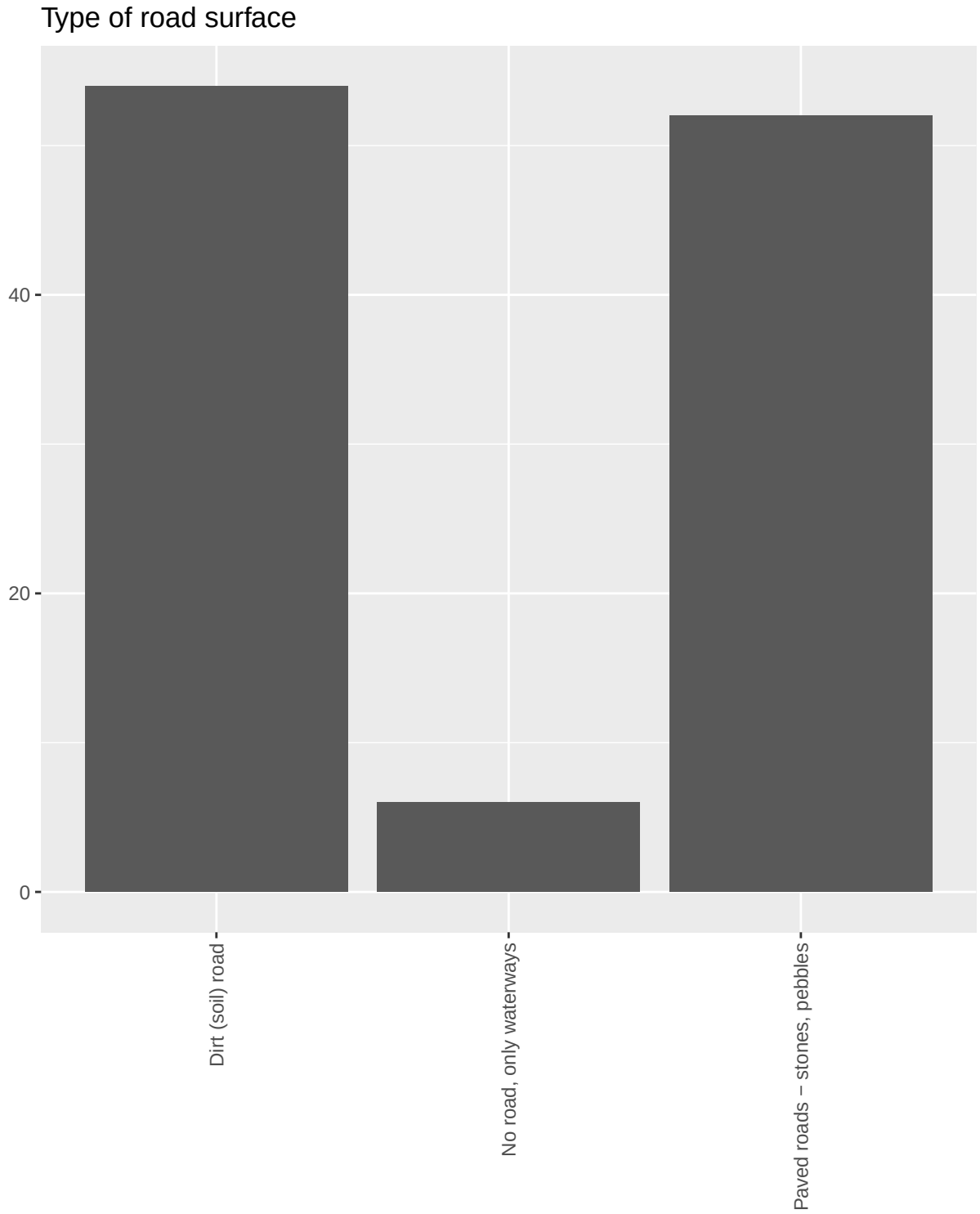

Meeting attendance
60
40
20
0
Any member of the village
Others
Village elders

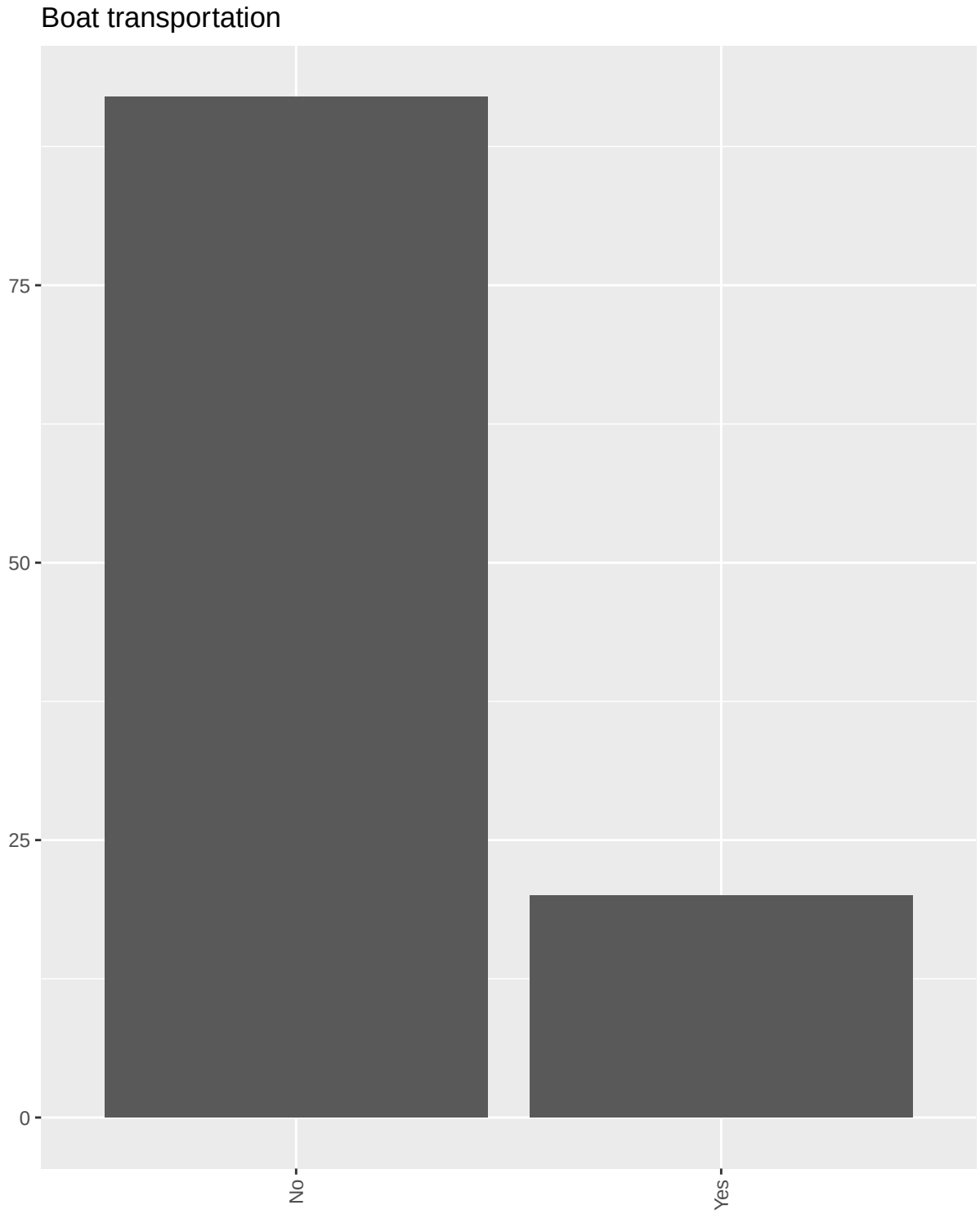

Age restriction meeting
60
40
20
0
No
Yes

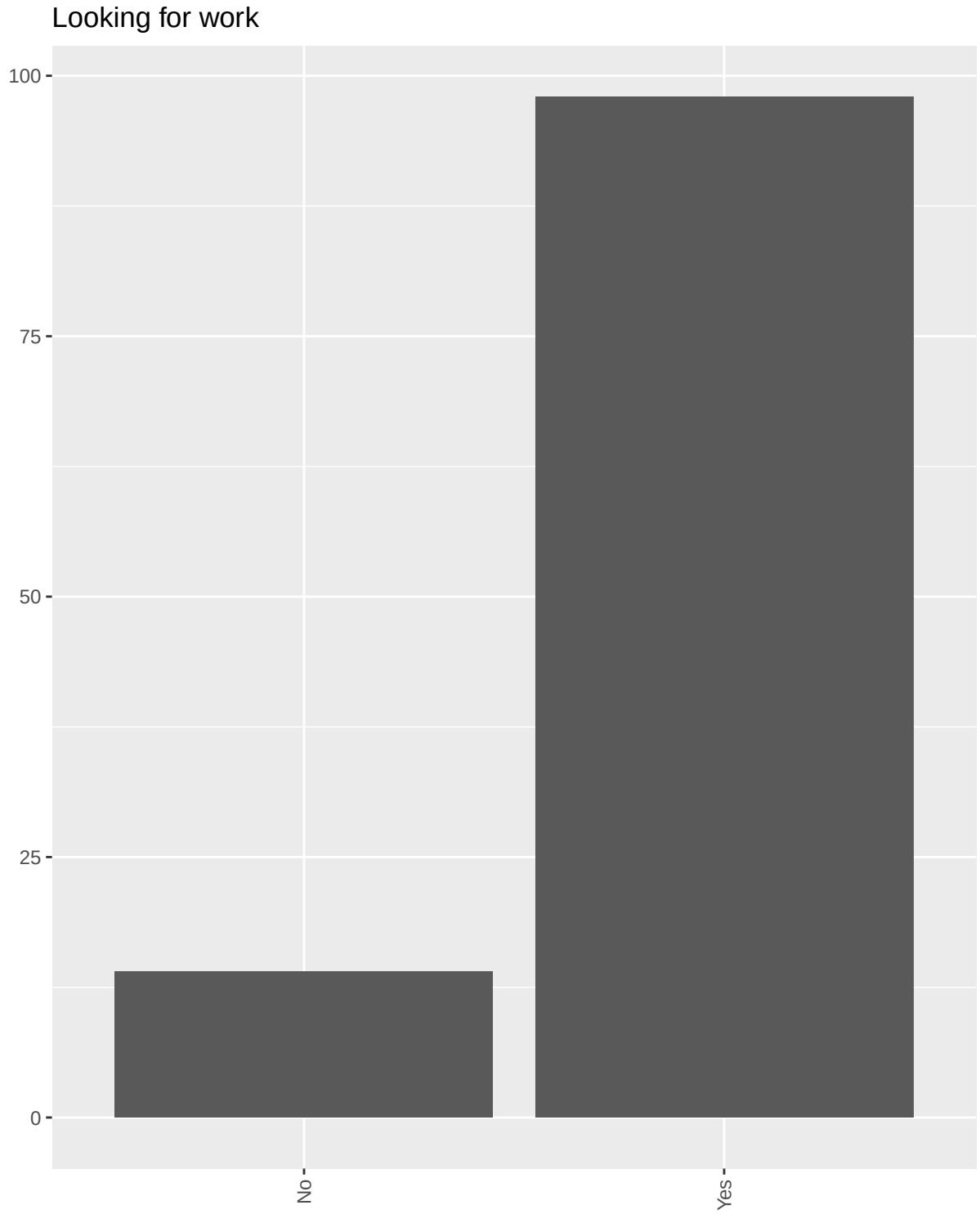

Age restriction to meeting
6
4
2
0
20
30
40
50
60

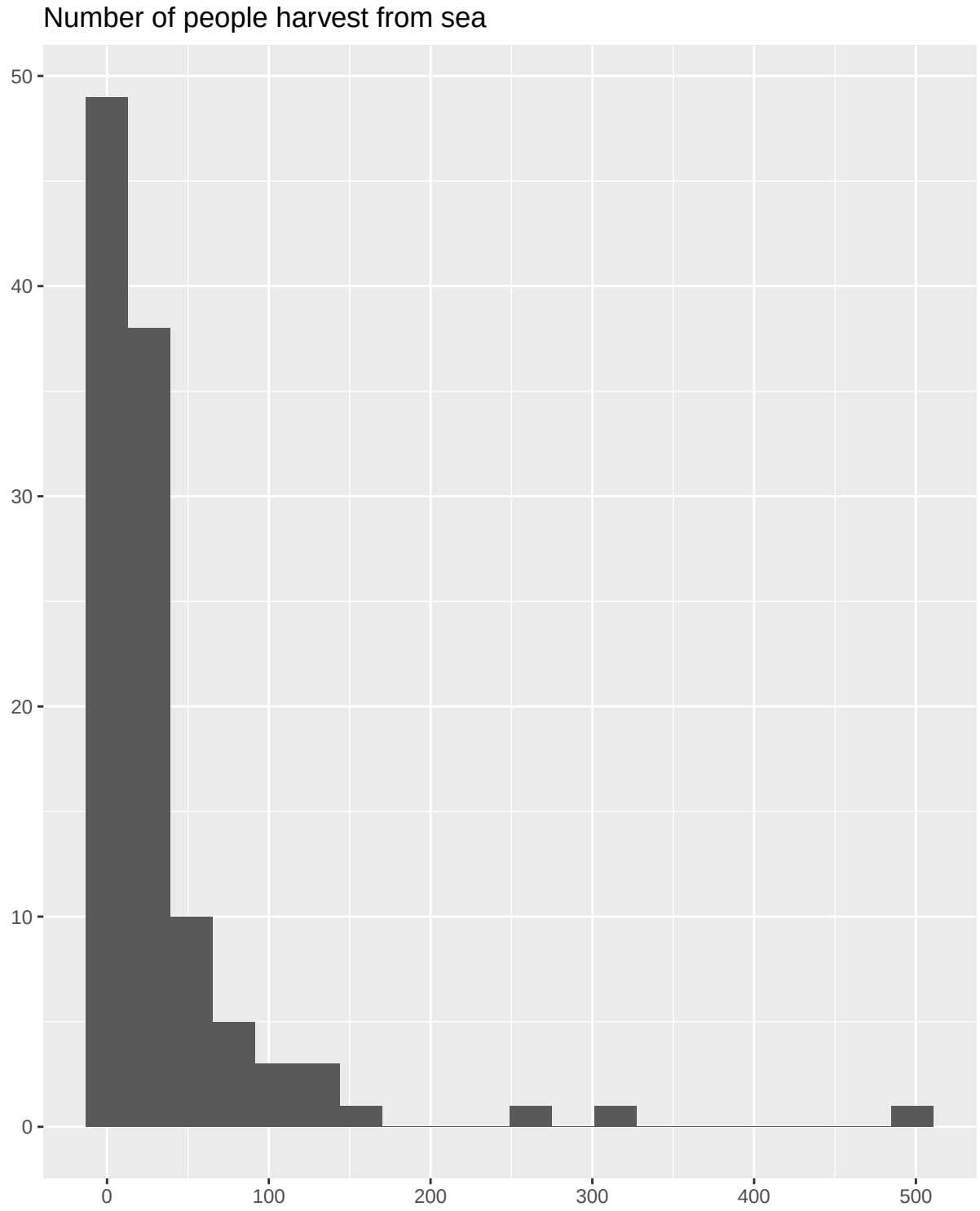

Gender restriction meeting
60
40
20
0
No
Yes

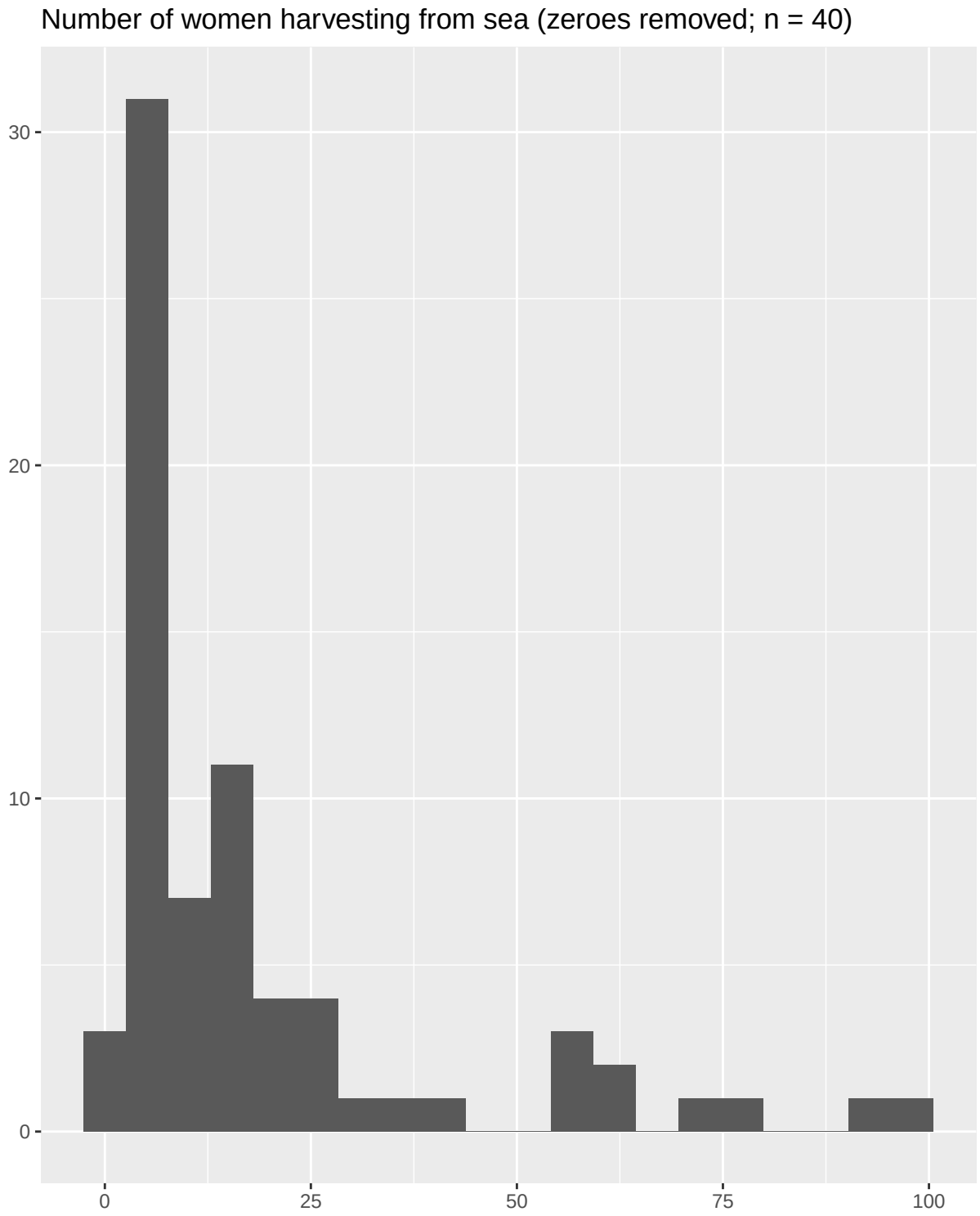

Residential restriction meeting
60
40
20
0
No
Yes

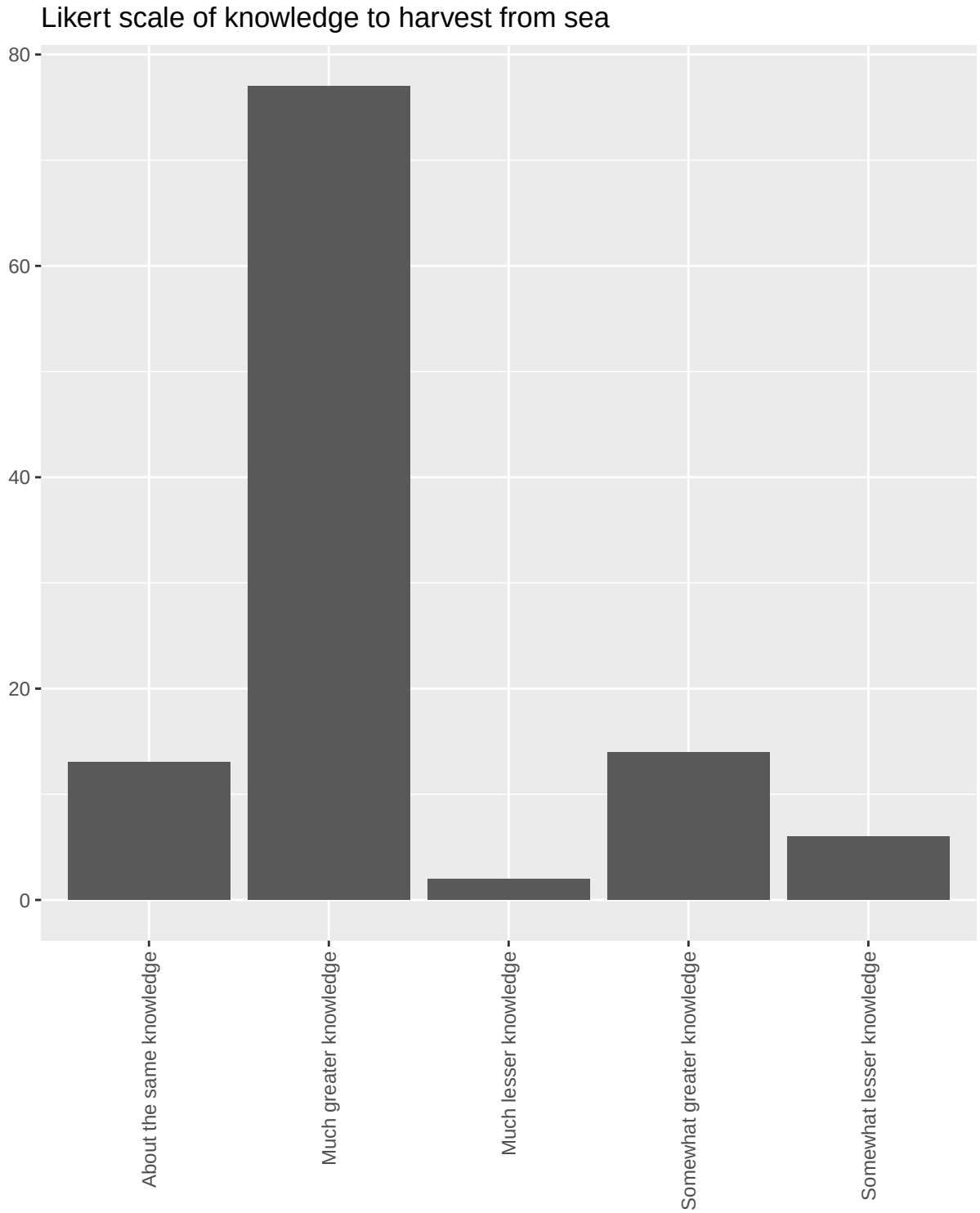

Type of road surface
40
20
0
Dirt (soil) road
No road, only waterways
Paved roads – stones, pebbles

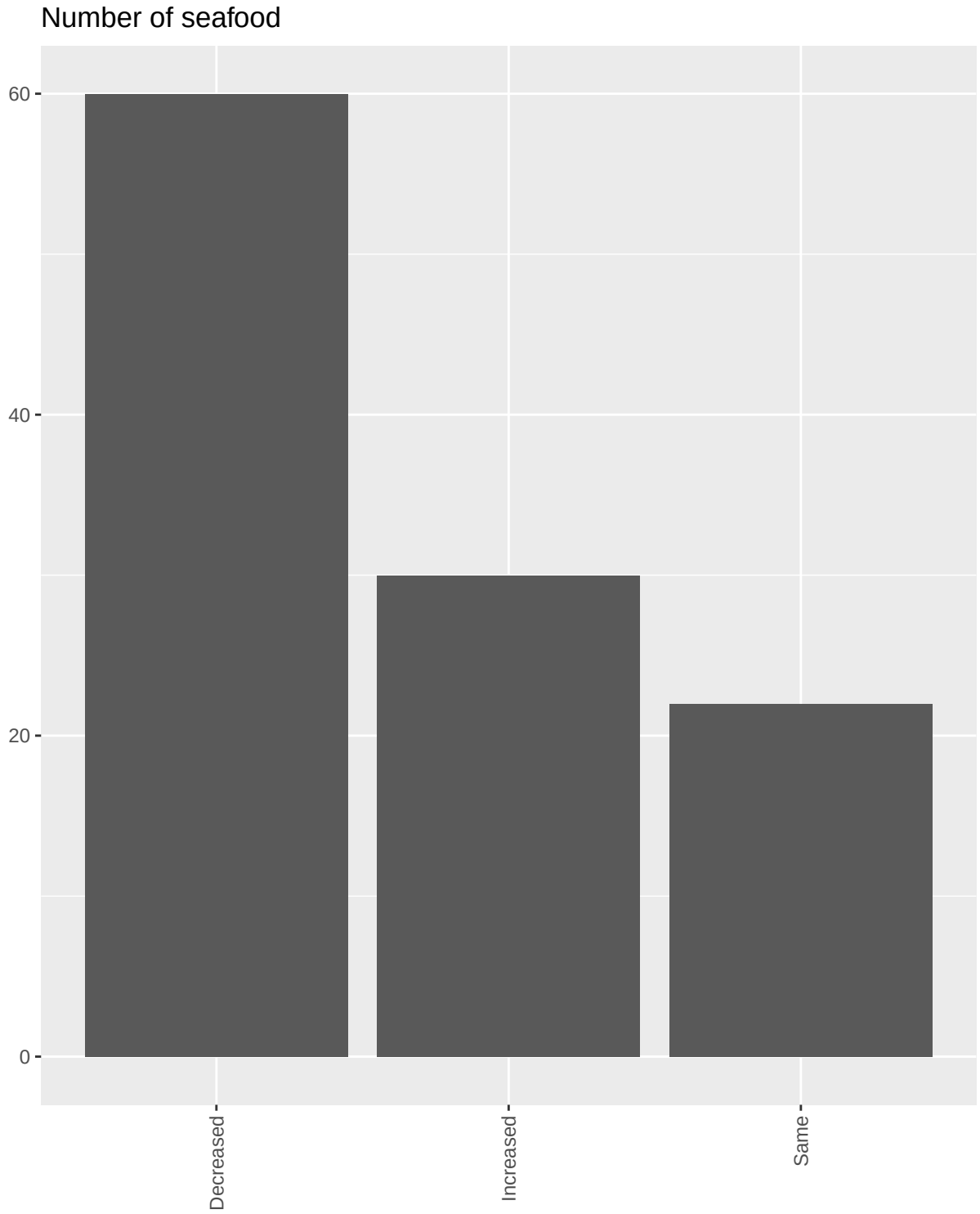

Boat transportation
75
50
25
0
No
Yes

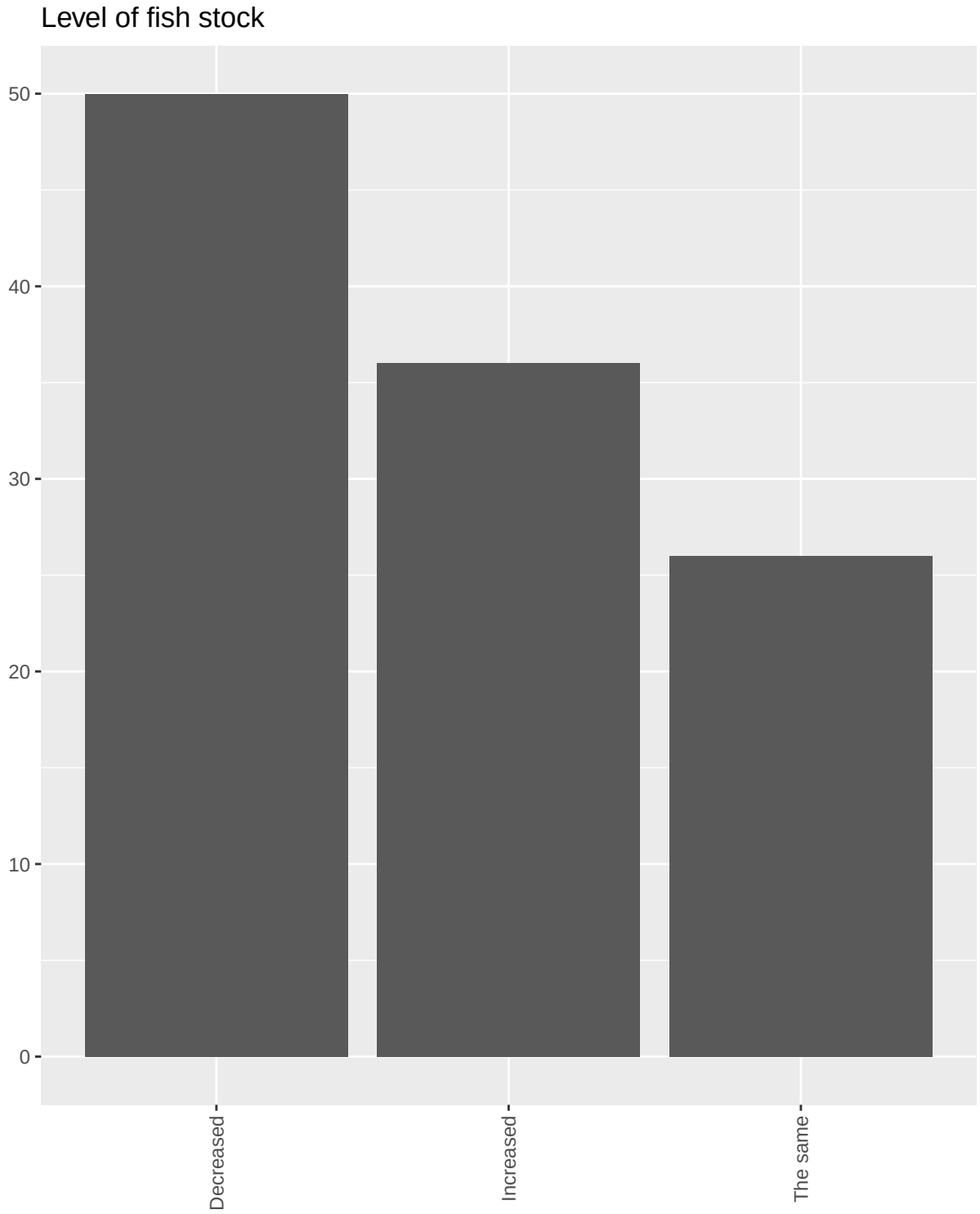

Looking for work
100
75
50
25
0
No
Yes

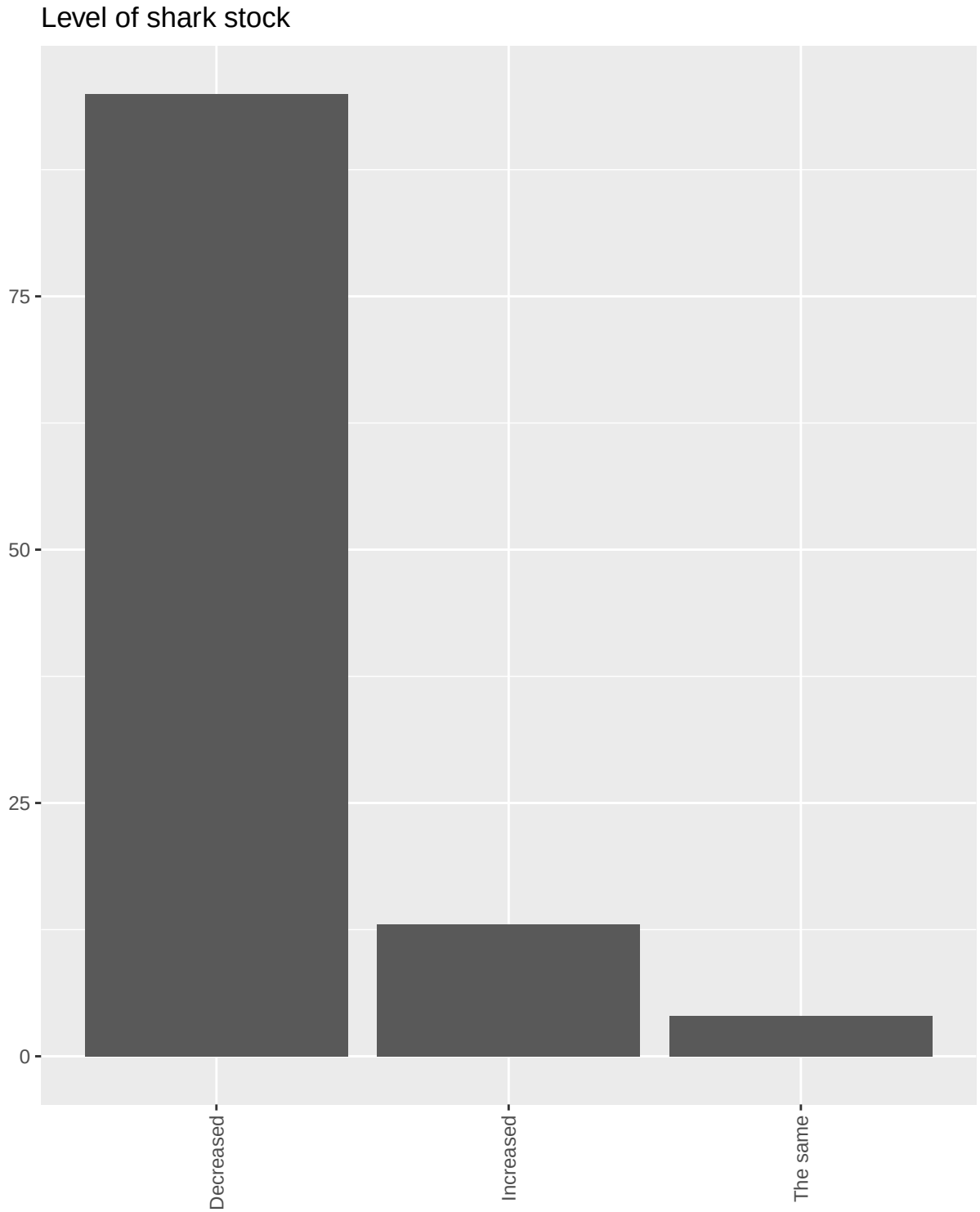

Number of people harvest from sea
50
40
30
20
10
0
0
100
200
300
400
500

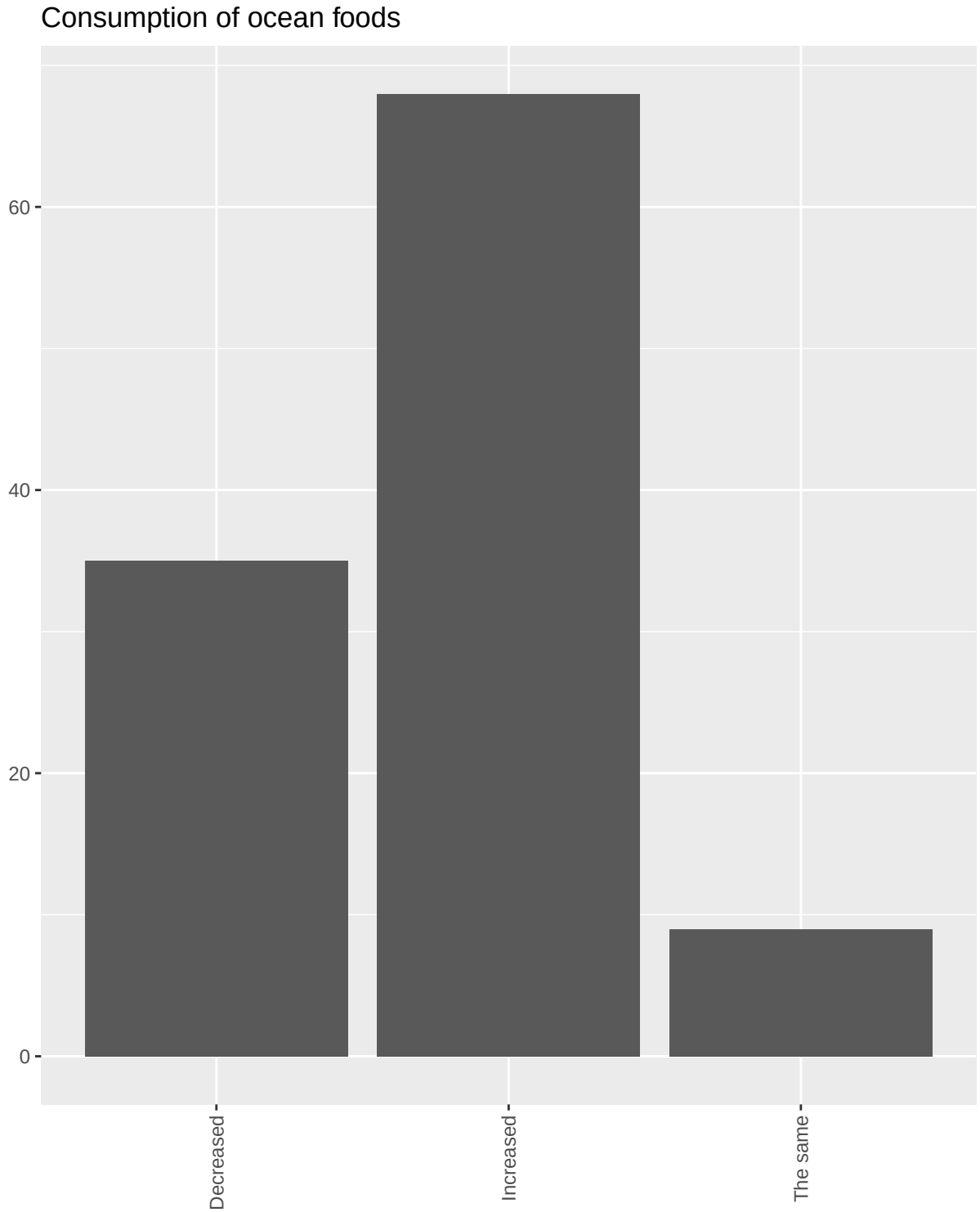

Number of women harvesting from sea (zeroes removed; n = 40)
30
20
10
0
0
25
50
75
100

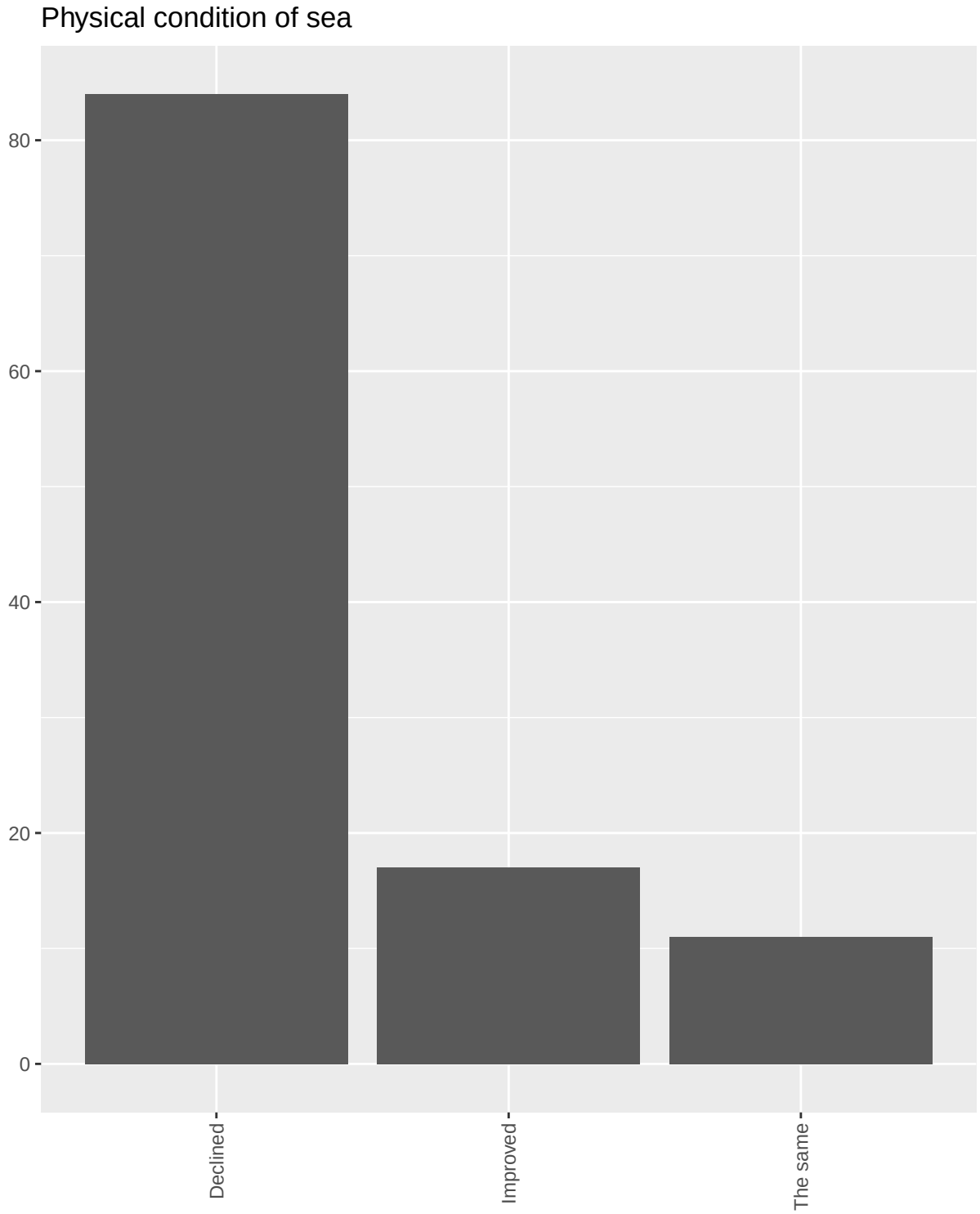

Likert scale of knowledge to harvest from sea
80
60
40
20
0
About the same knowledge
Much greater knowledge
Much lesser knowledge
Somewhat greater knowledge
Somewhat lesser knowledge

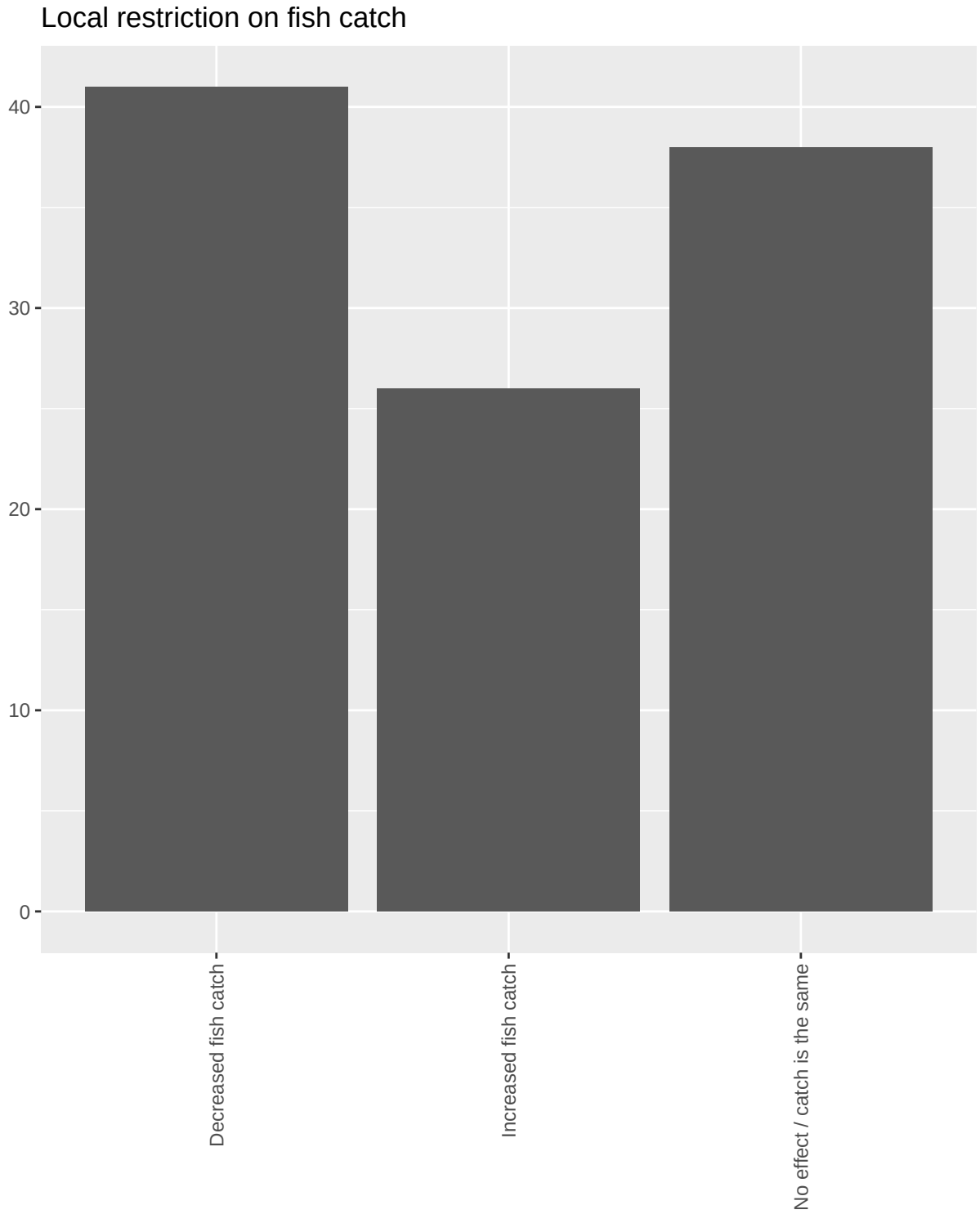

Number of seafood
60
40
20
0
Decreased
Increased
Same

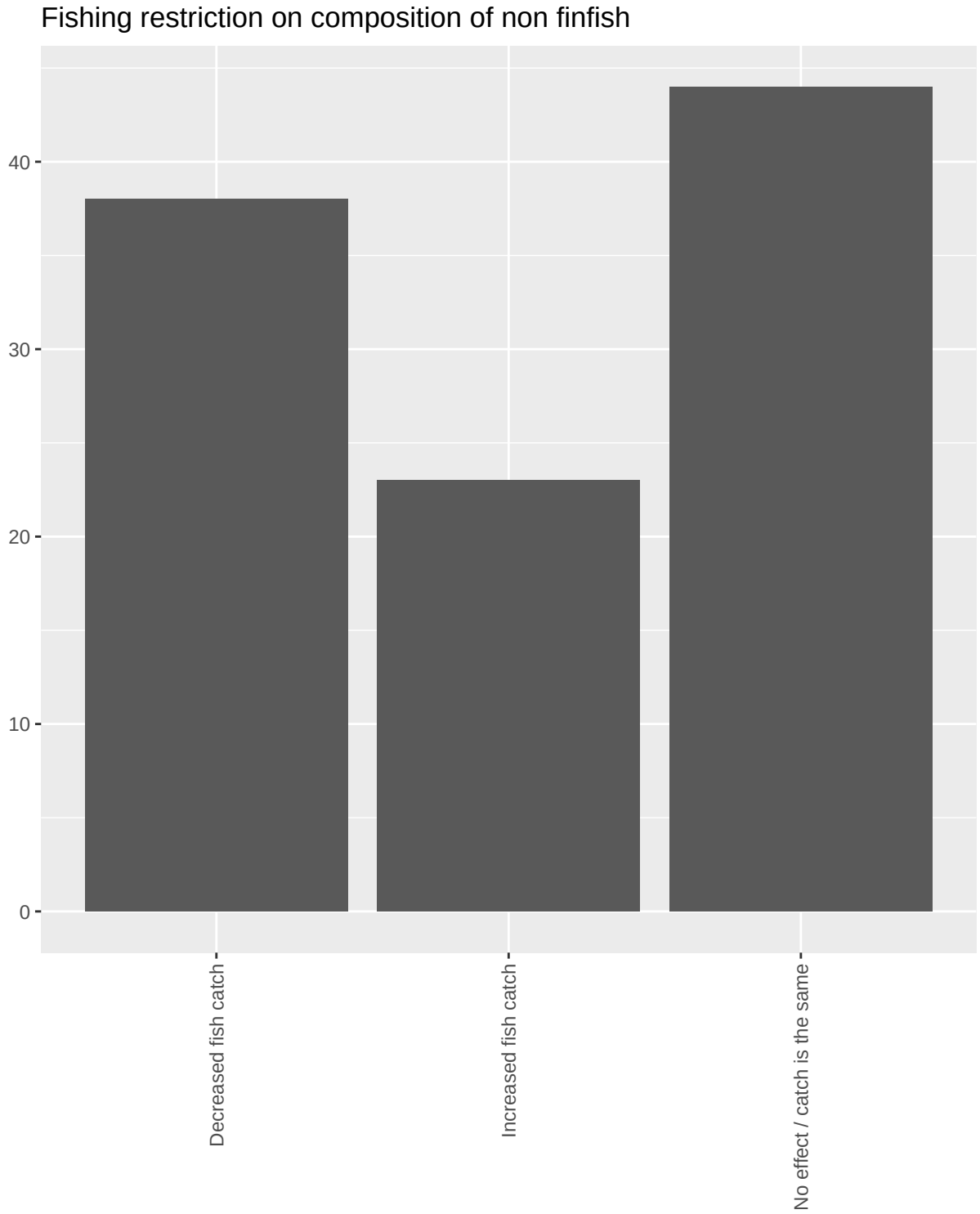

Level of fish stock
50
40
30
20
10
0
Decreased
Increased
The same

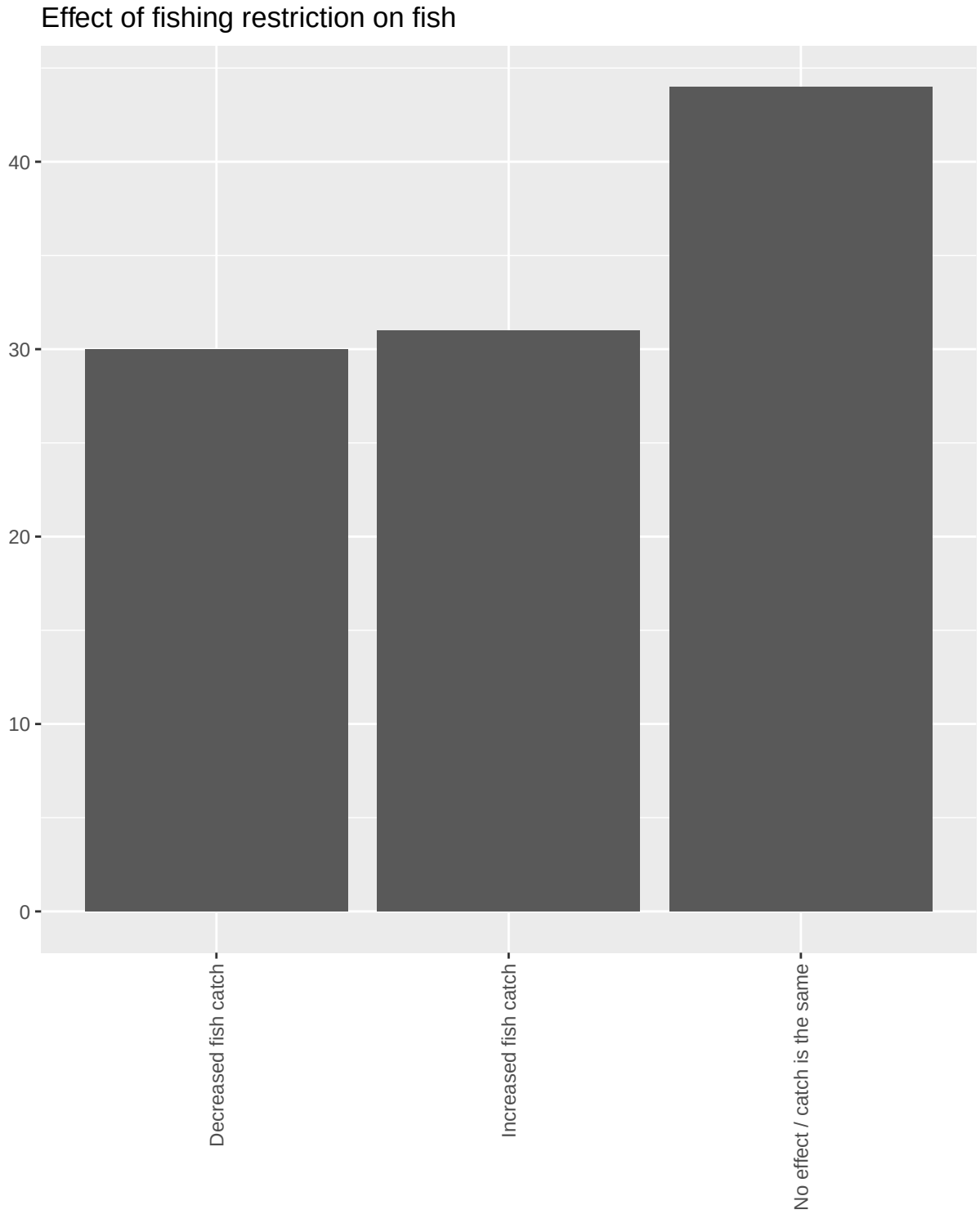

Level of shark stock
75
50
25
0
Decreased
Increased
The same

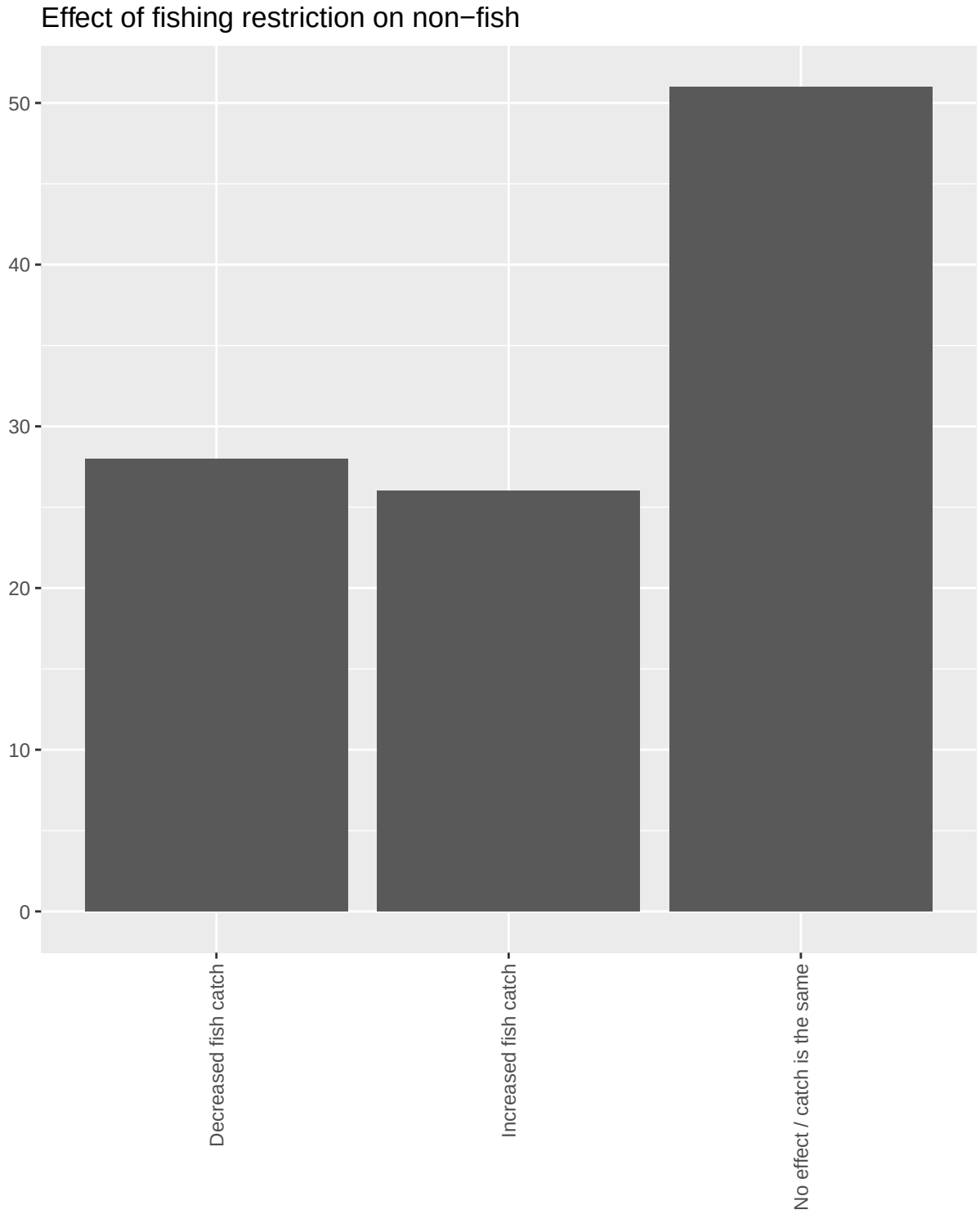

Consumption of ocean foods
60
40
20
0
Decreased
Increased
The same

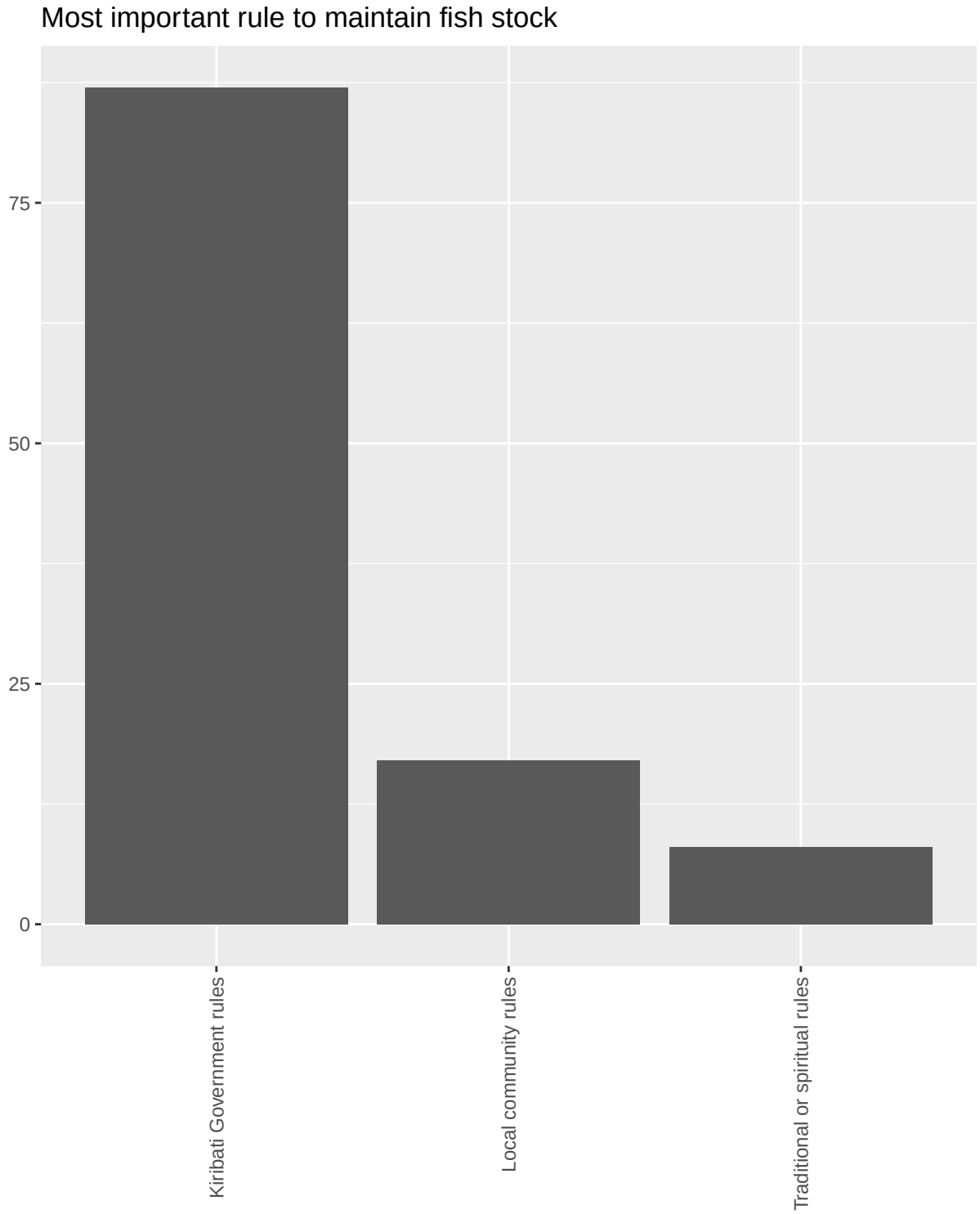

Physical condition of sea
80
60
40
20
0
Declined
Improved
The same

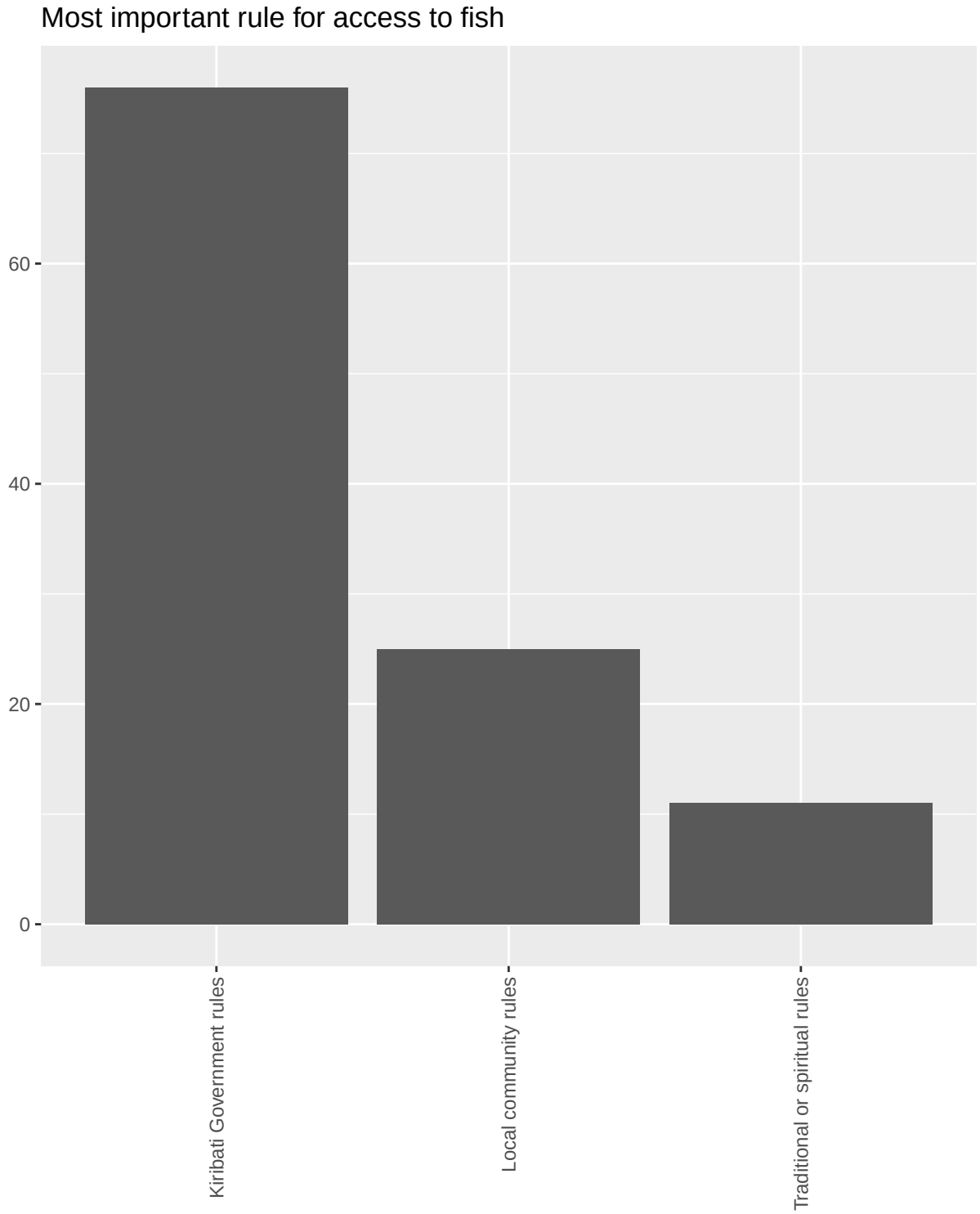

Local restriction on fish catch
40
30
20
10
0
Decreased fish catch
Increased fish catch
No effect / catch is the same

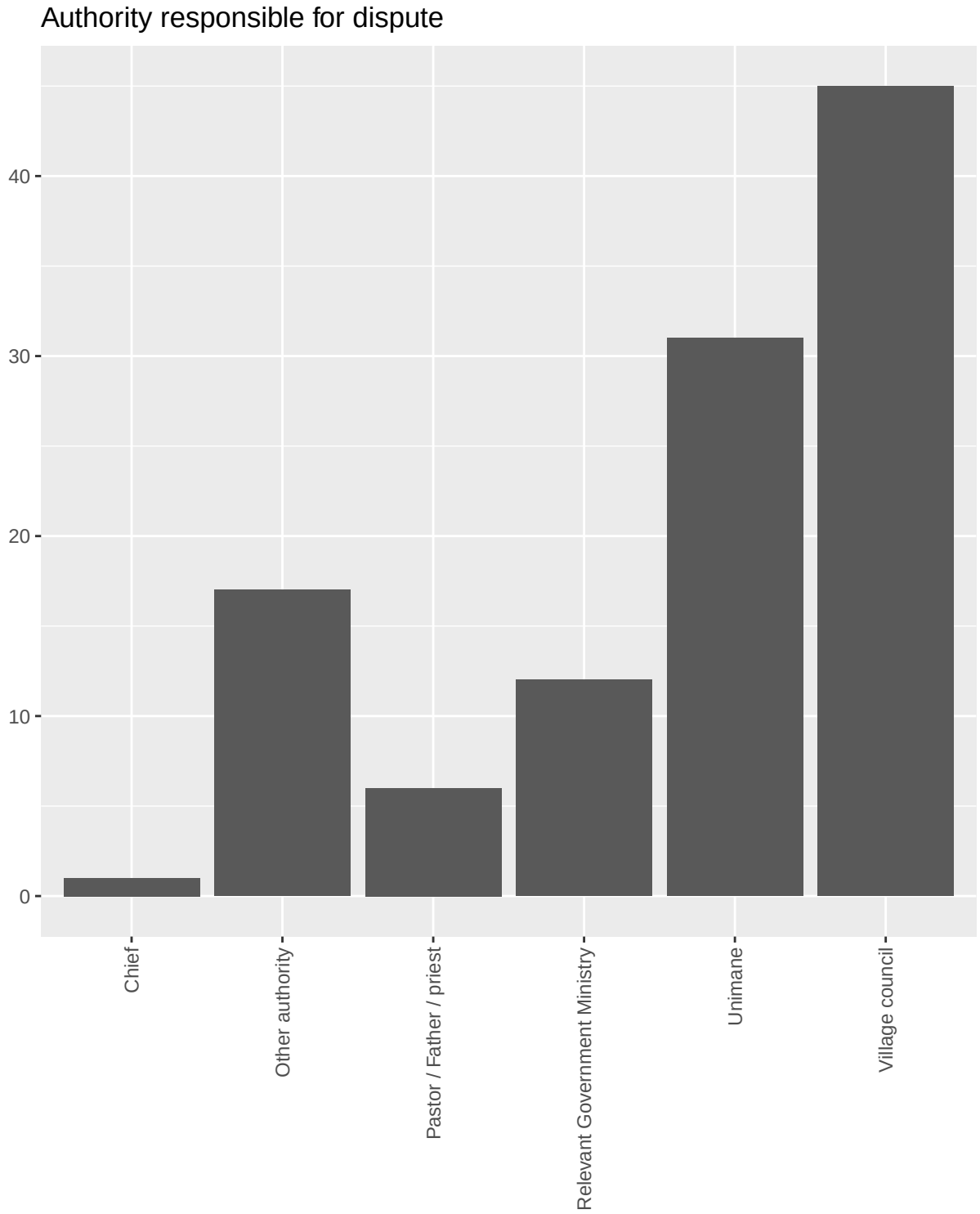

Fishing restriction on composition of non finfish
40
30
20
10
0
Decreased fish catch
Increased fish catch
No effect / catch is the same

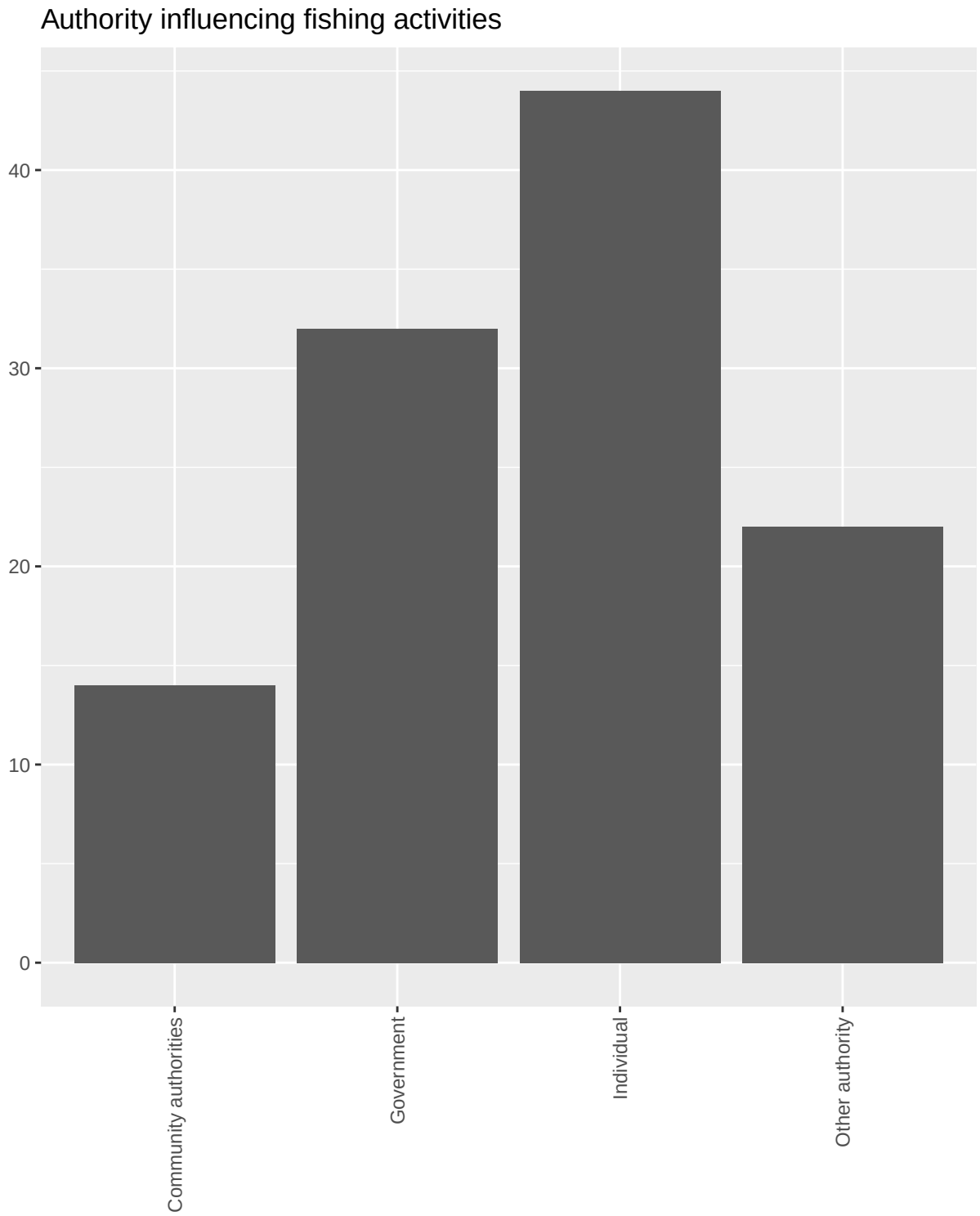

Effect of fishing restriction on fish
40
30
20
10
0
Decreased fish catch
Increased fish catch
No effect / catch is the same

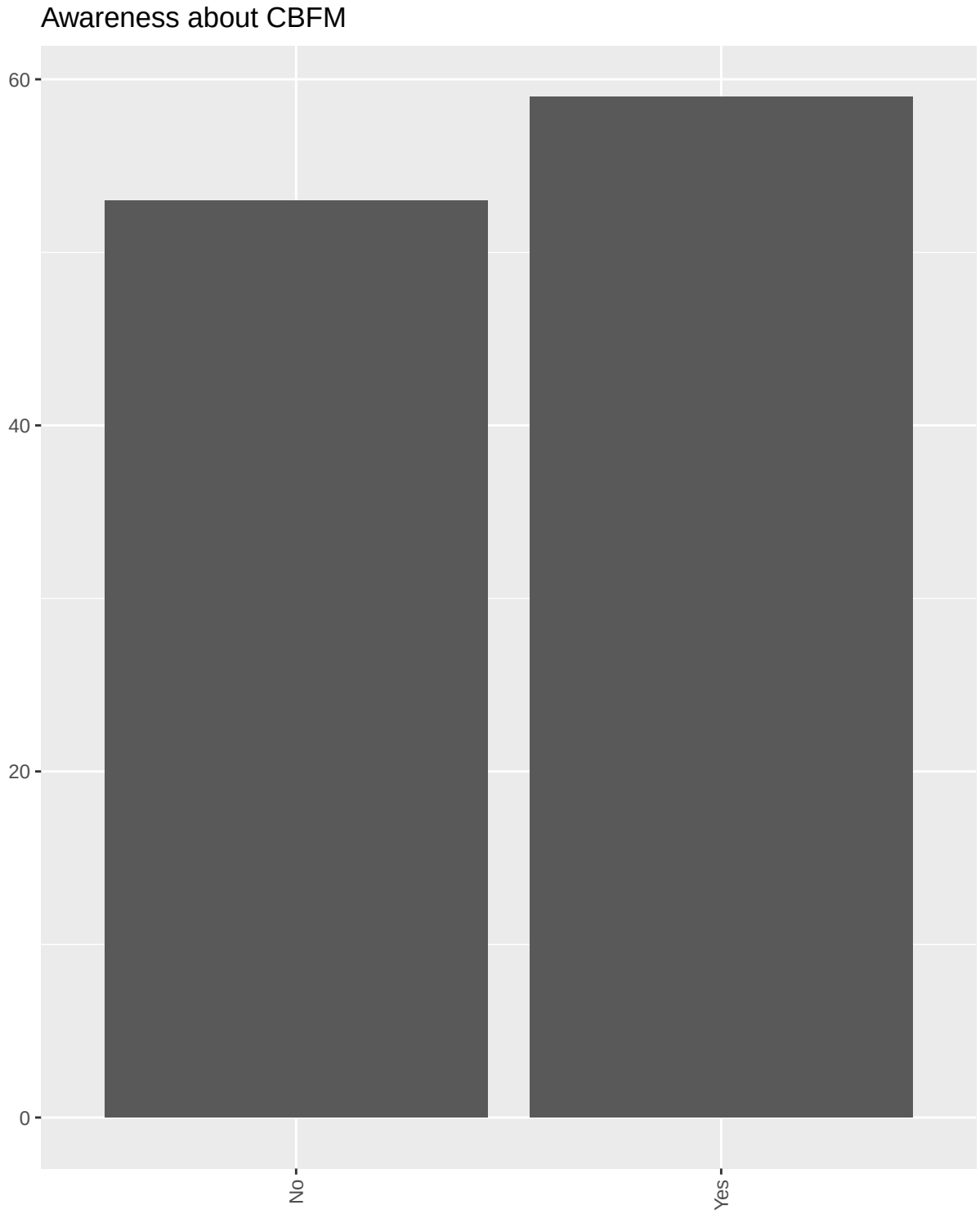

Effect of fishing restriction on non−fish
50
40
30
20
10
0
Decreased fish catch
Increased fish catch
No effect / catch is the same

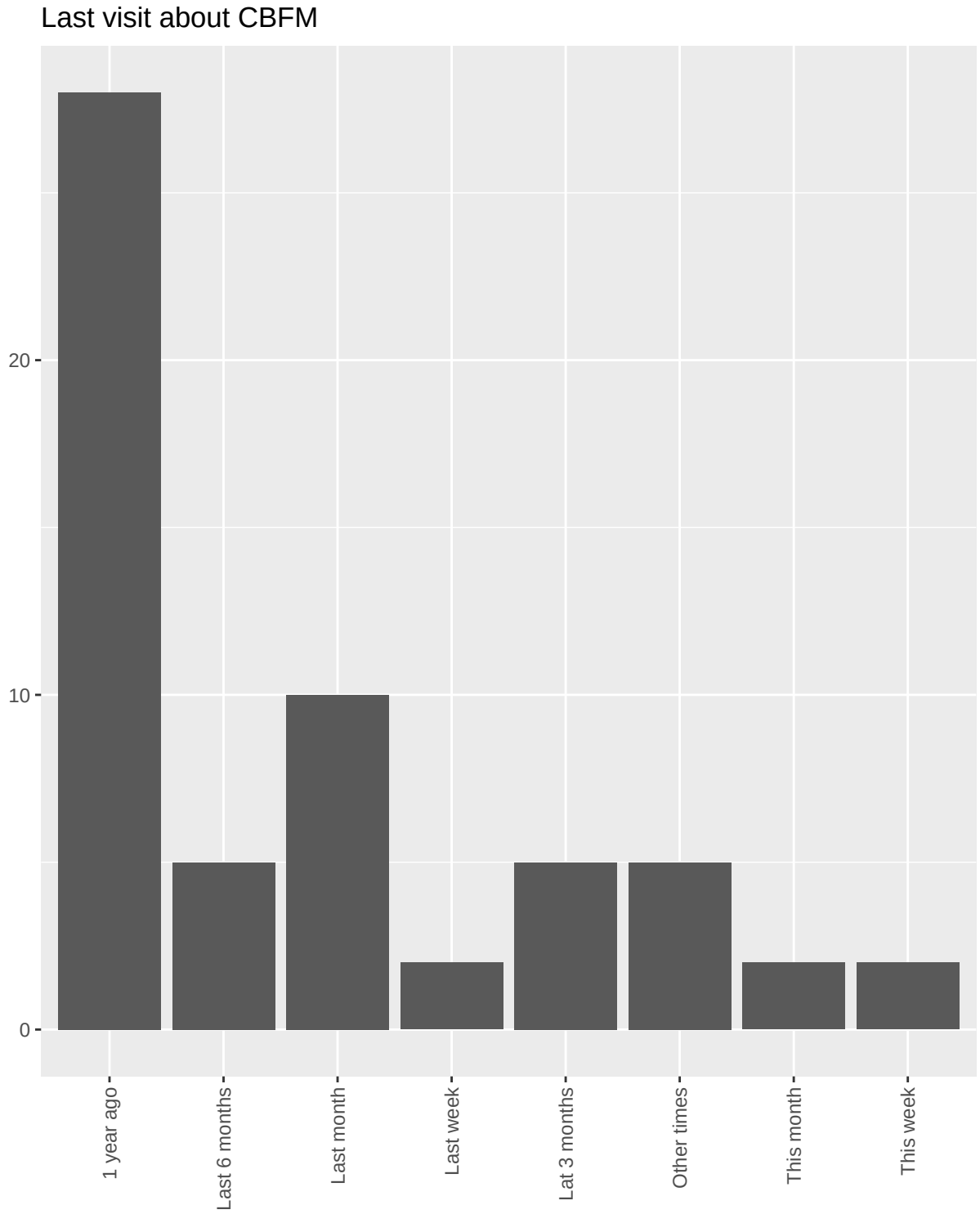

Most important rule to maintain fish stock
75
50
25
0
Kiribati Government rules
Local community rules
Traditional or spiritual rules

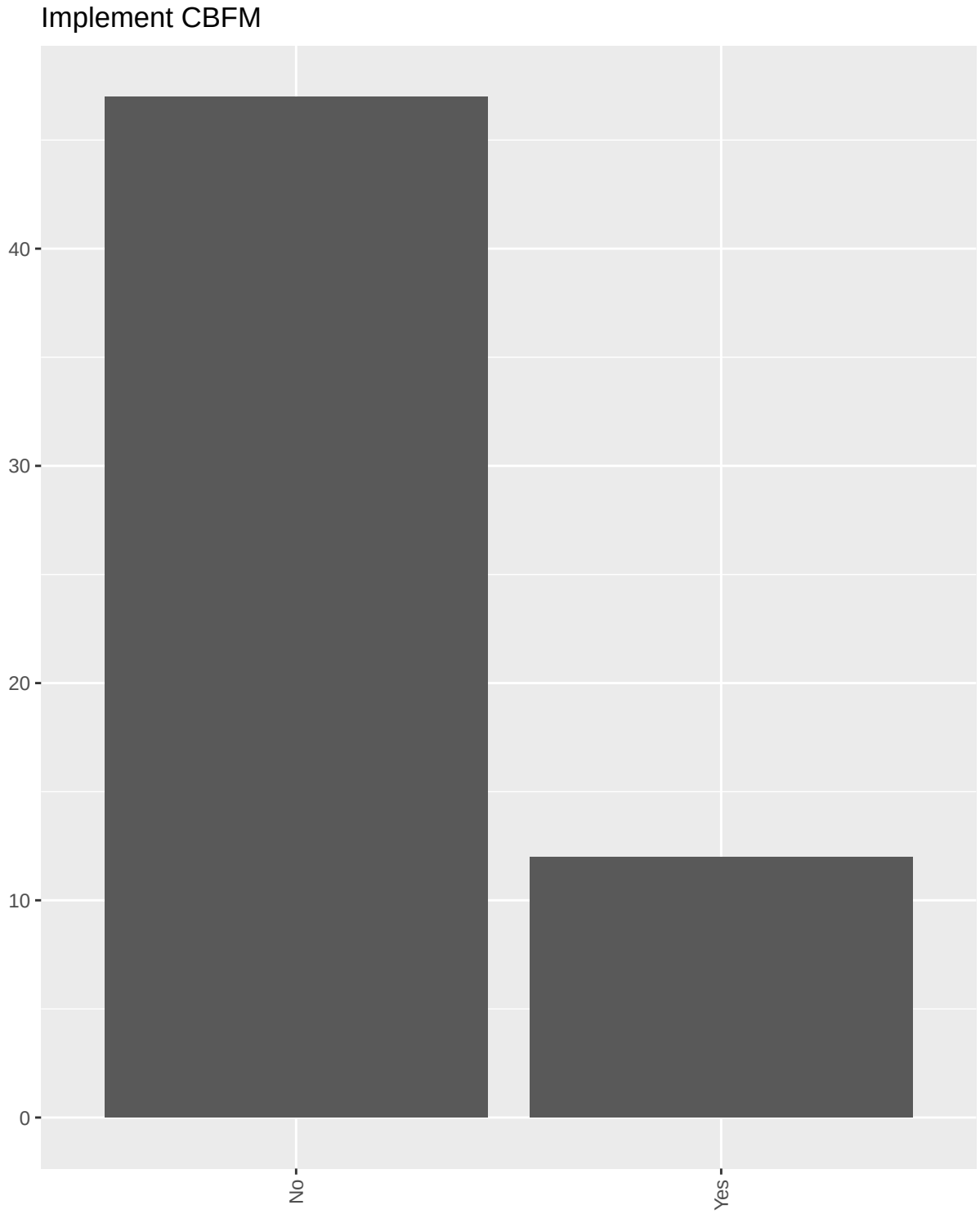

Most important rule for access to fish
60
40
20
0
Kiribati Government rules
Local community rules
Traditional or spiritual rules

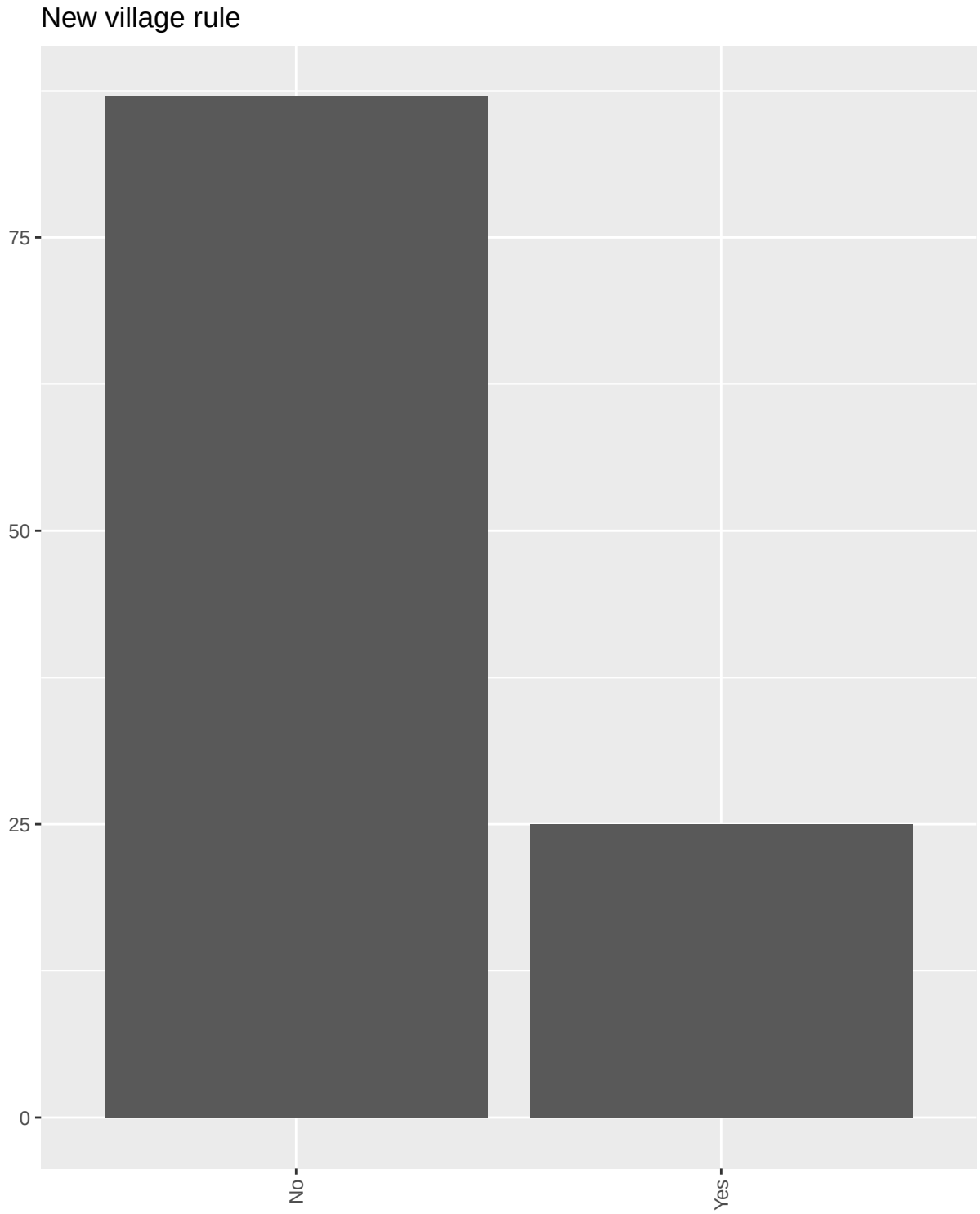

Authority responsible for dispute
40
30
20
10
0
Chief
Other authority
Pastor / Father / priest
Relevant Government Ministry
Unimane
Village council

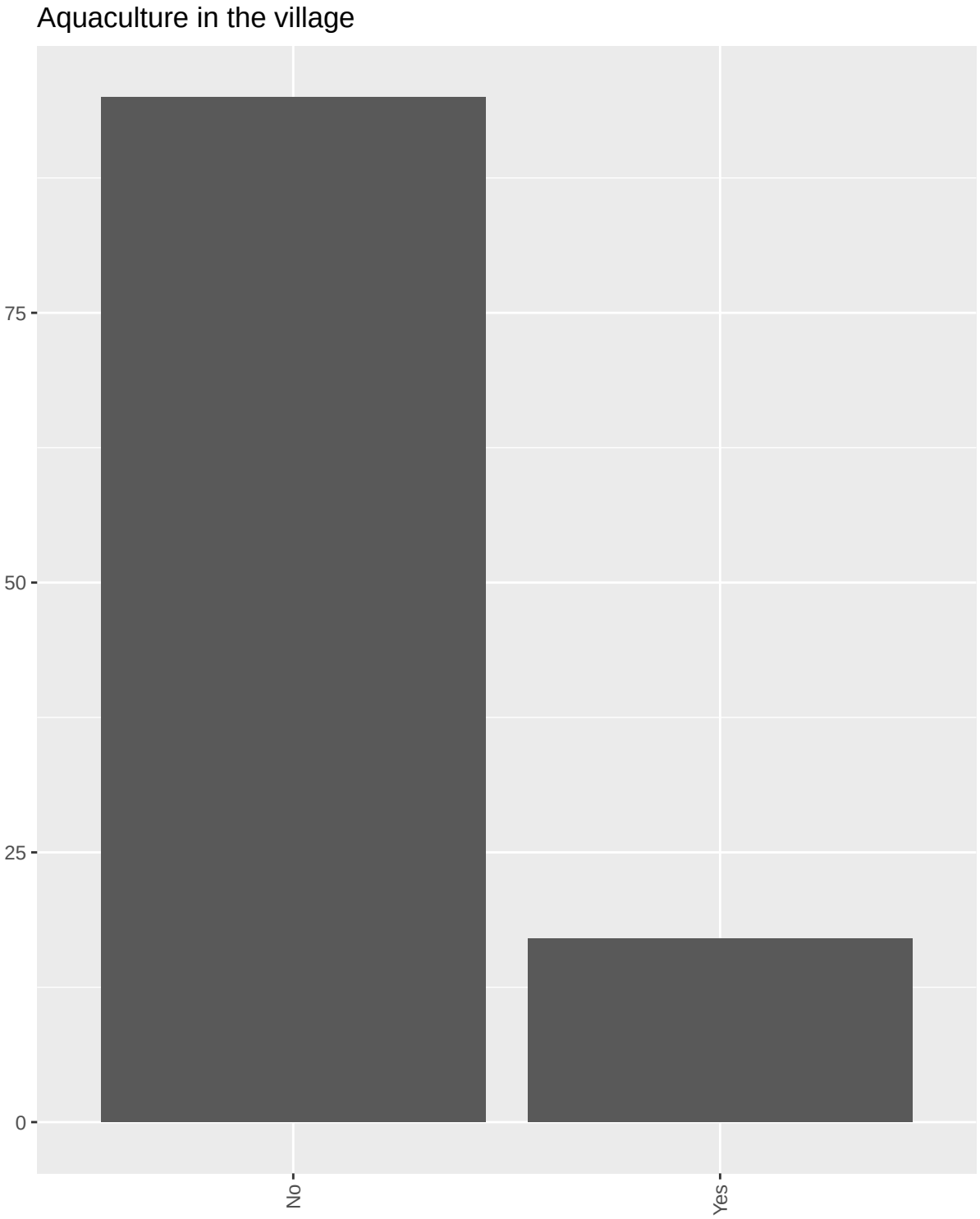

Authority influencing fishing activities
40
30
20
10
0
Community authorities
Government
Individual
Other authority

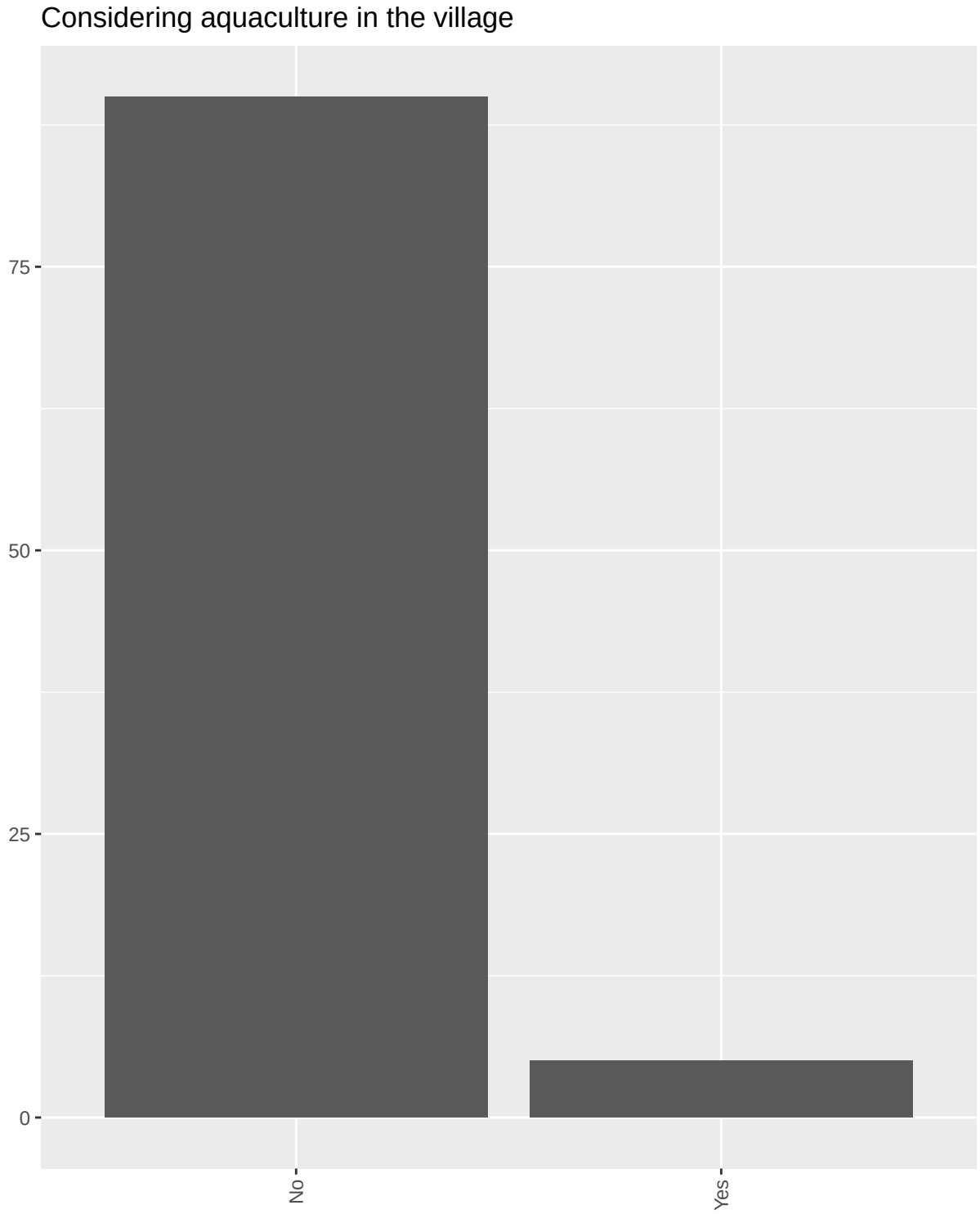

Awareness about CBFM
60
40
20
0
No
Yes

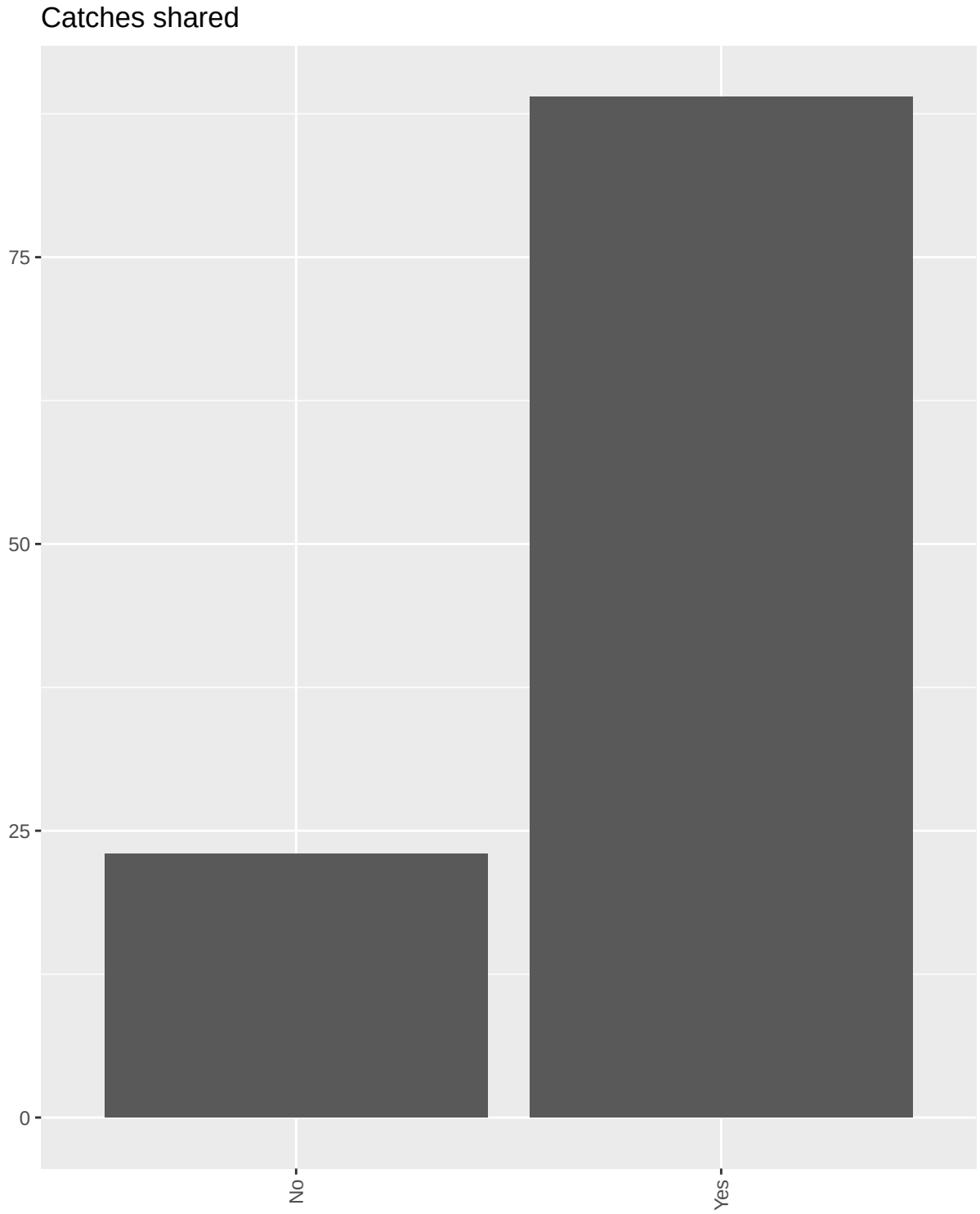

Last visit about CBFM
20
10
0
1 year ago
Last 6 months
Last month
Last week
Lat 3 months
Other times
This month
This week

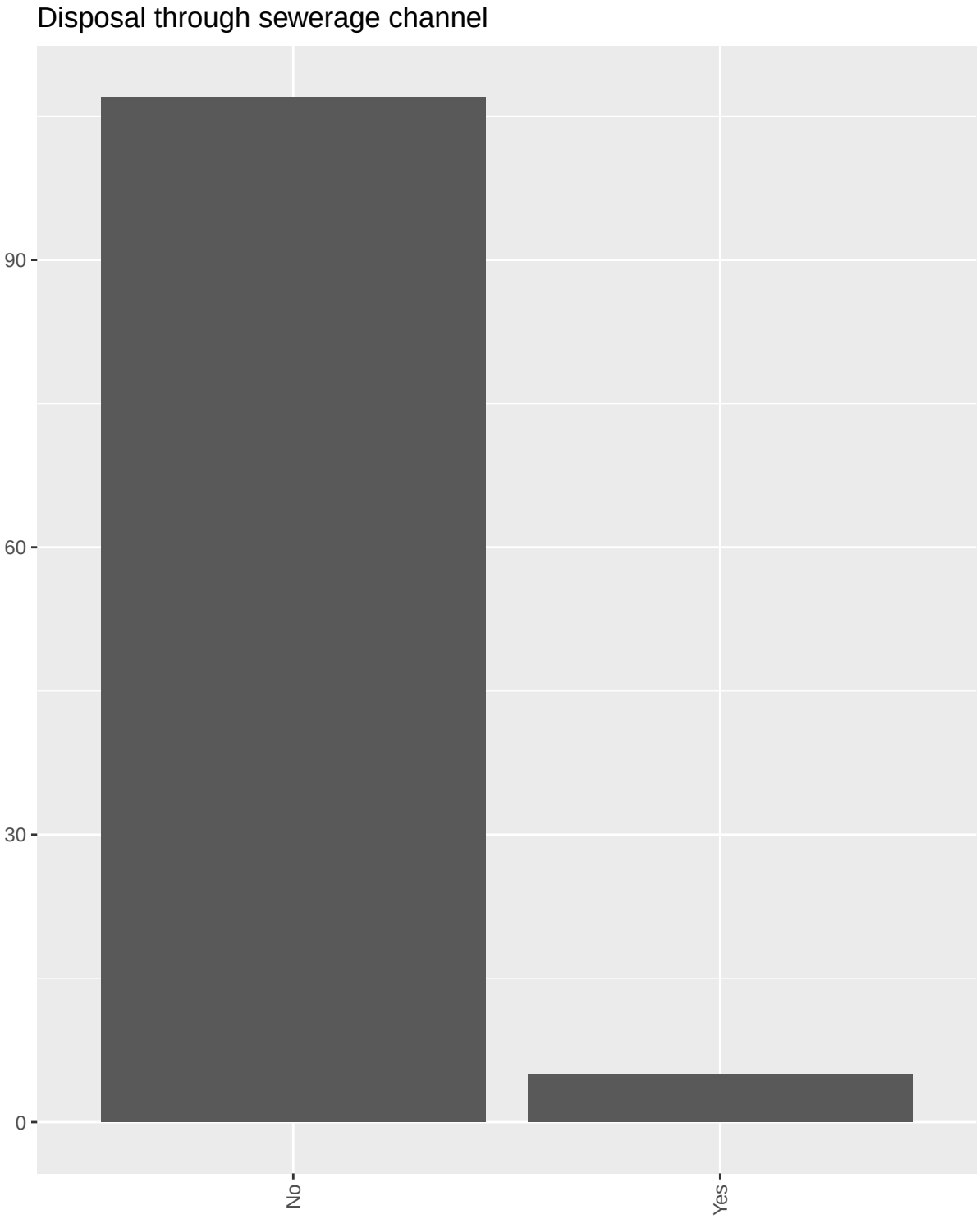

Implement CBFM
40
30
20
10
0
No
Yes

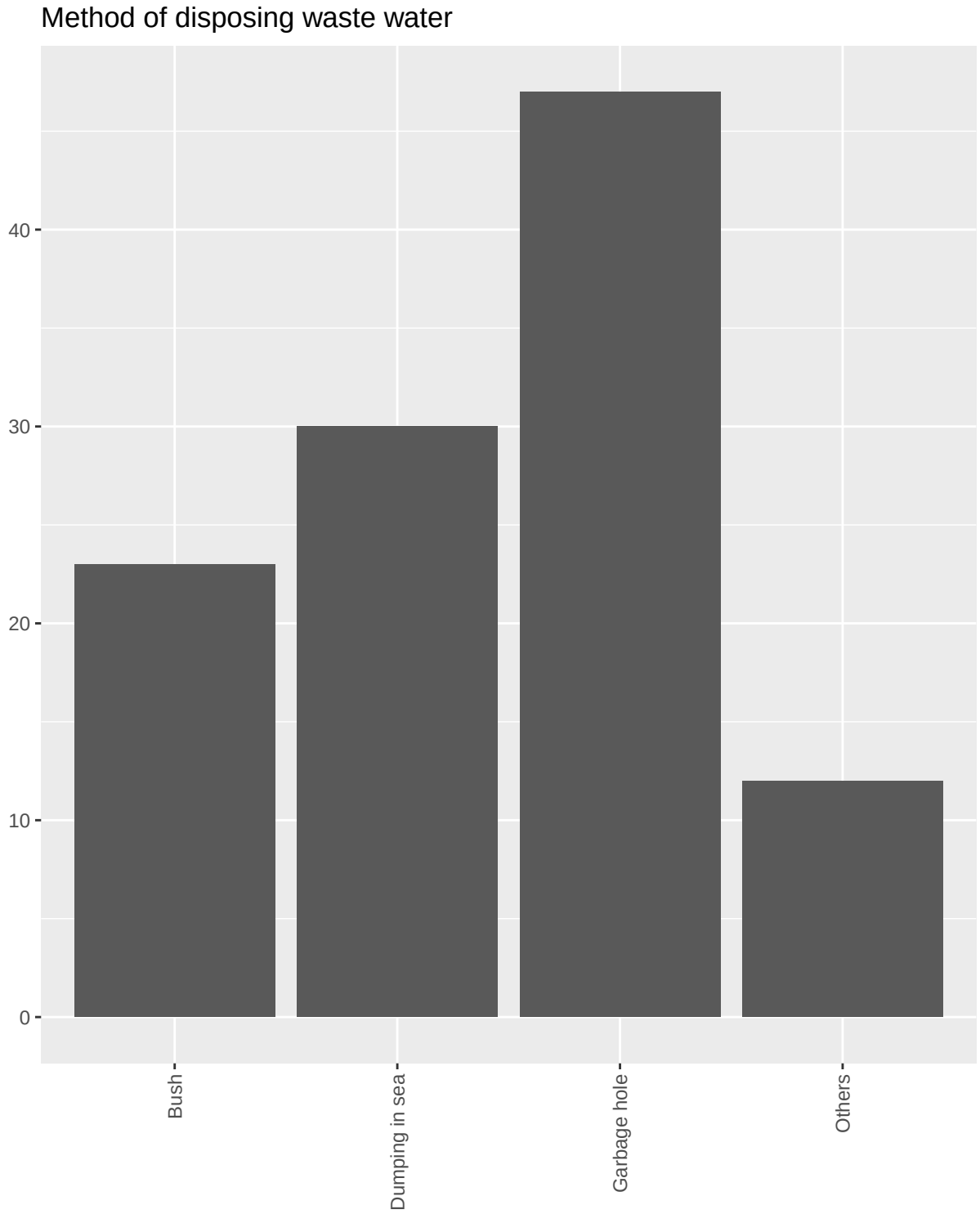

New village rule
75
50
25
0
No
Yes

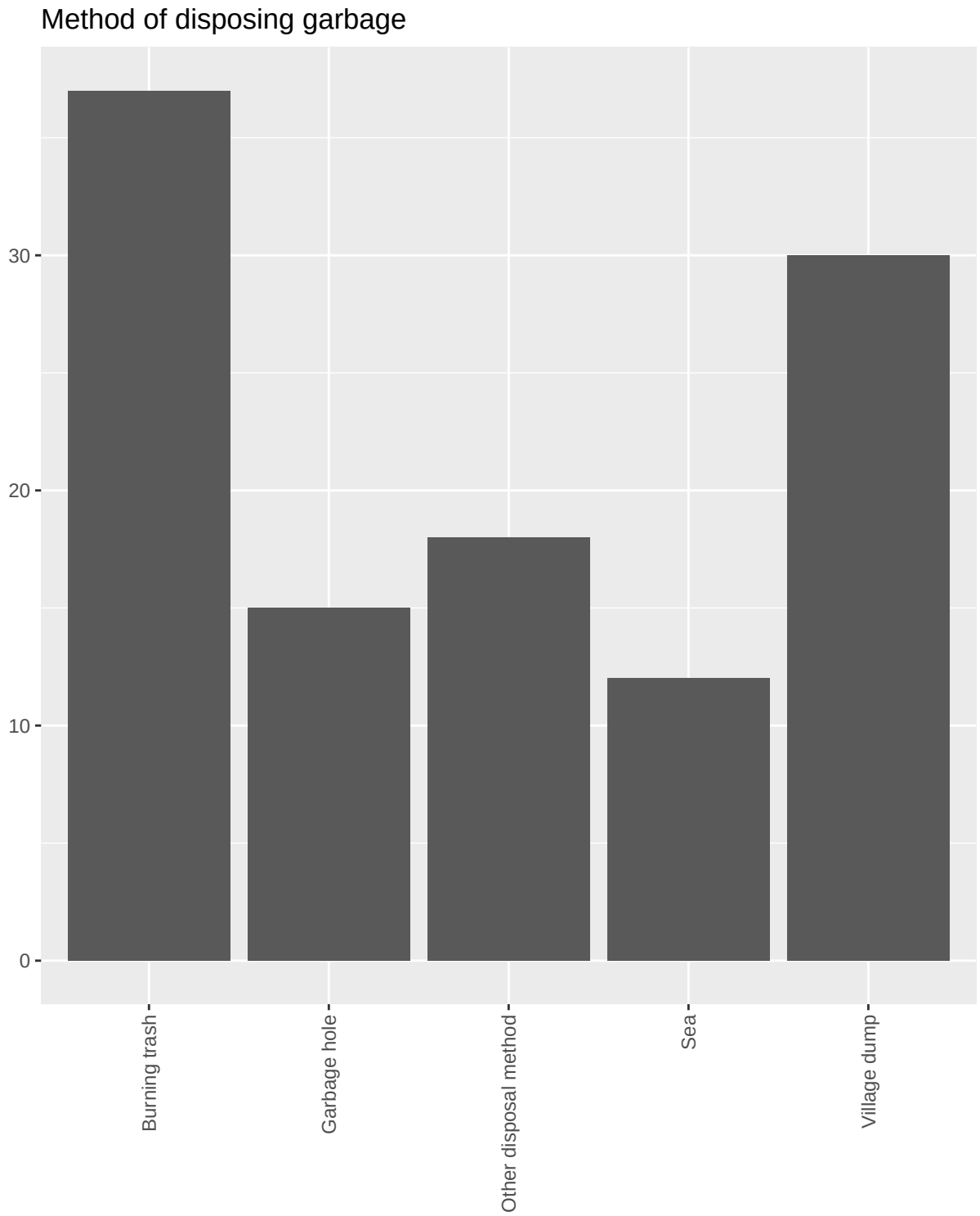

Aquaculture in the village
75
50
25
0
No
Yes

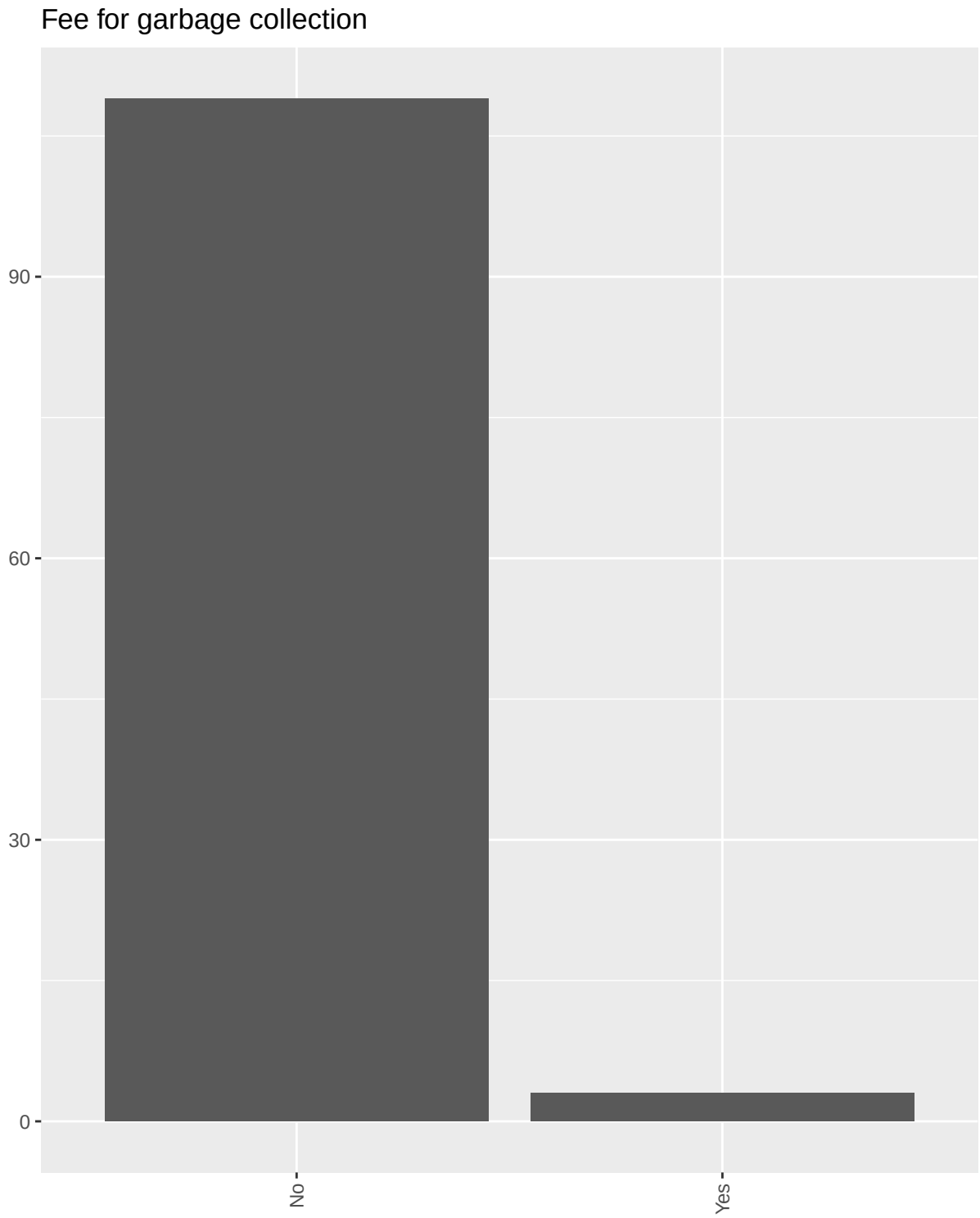

Considering aquaculture in the village
75
50
25
0
No
Yes

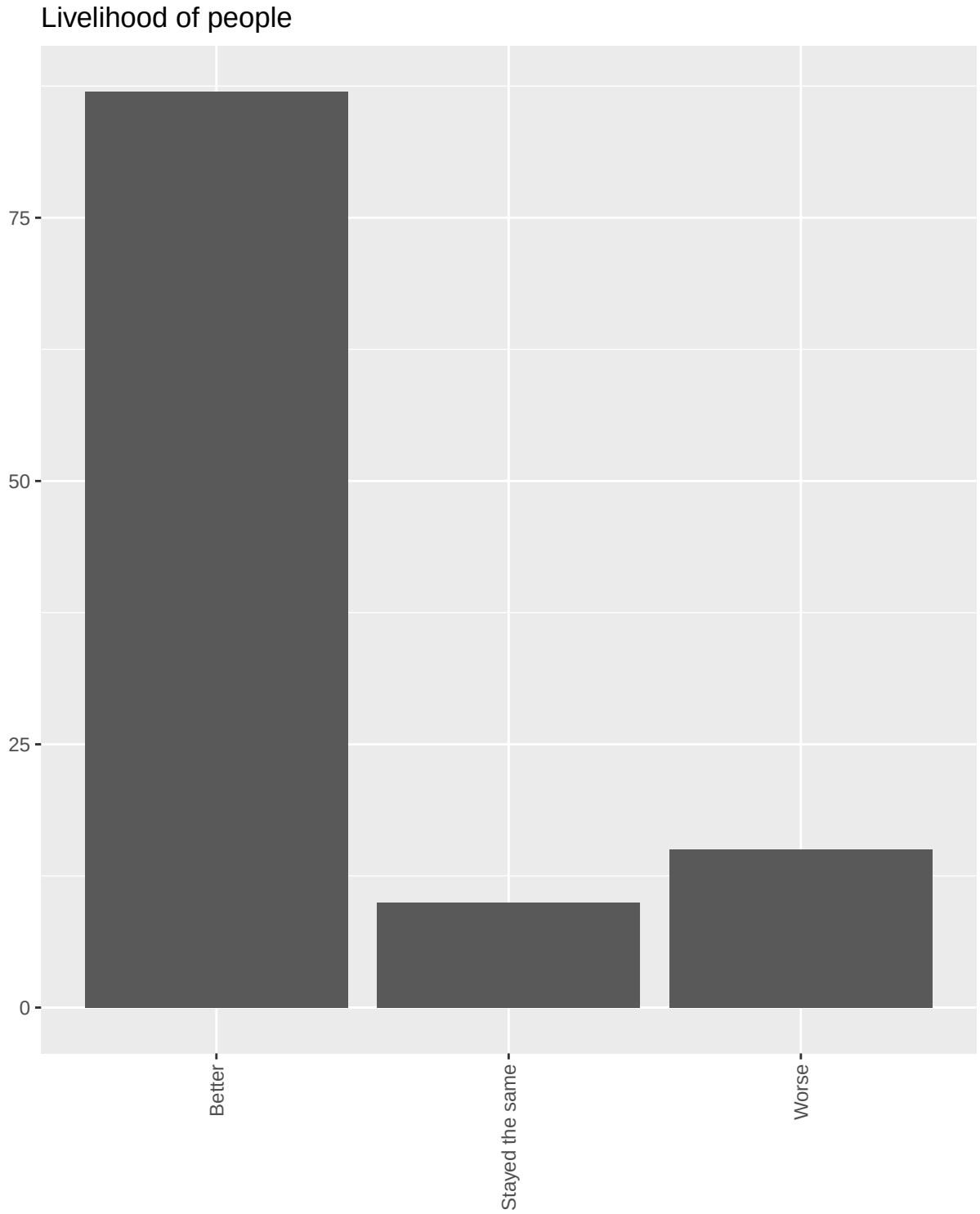

Catches shared
75
50
25
0
No
Yes

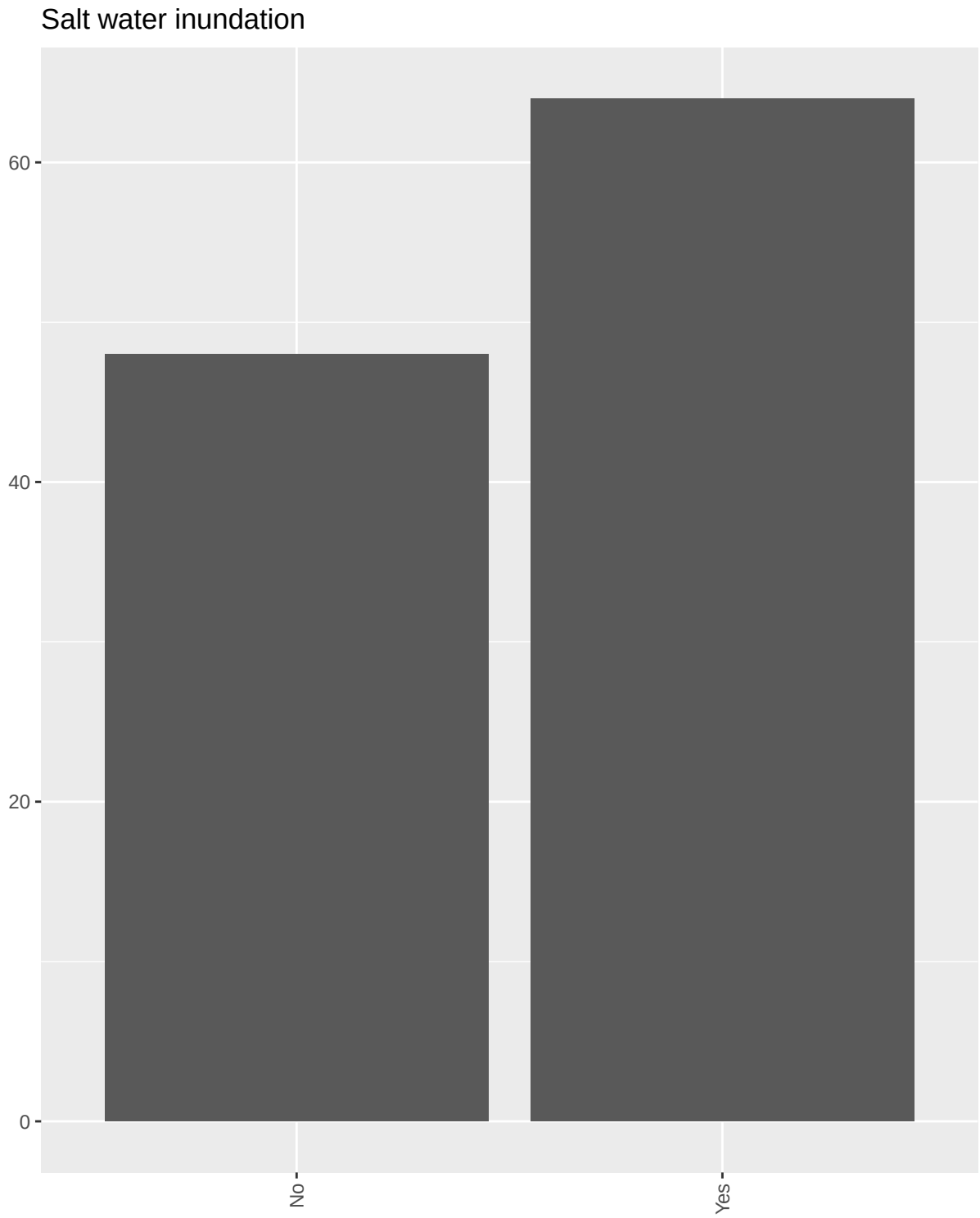

Disposal through sewerage channel
90
60
30
0
No
Yes

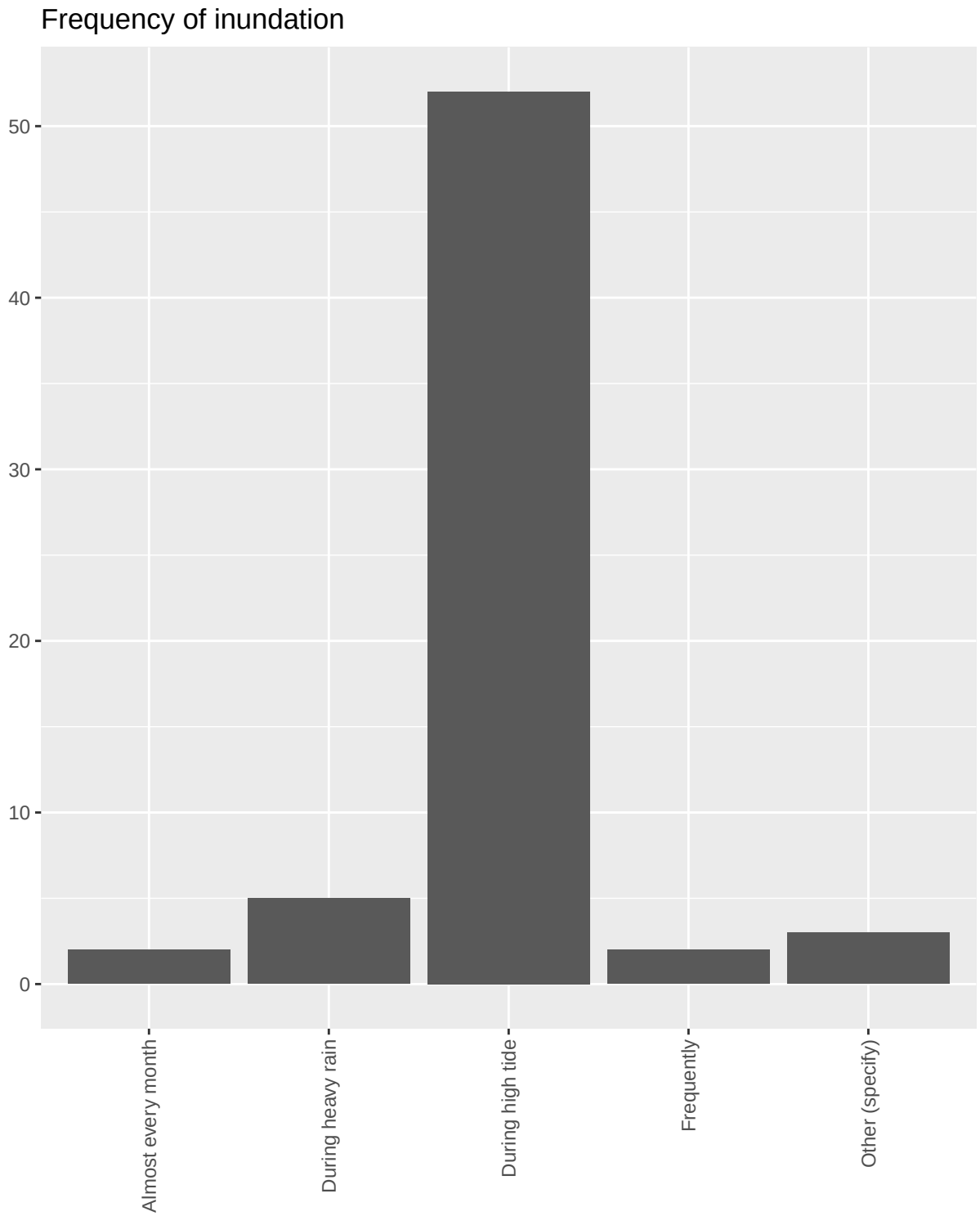

Method of disposing waste water
40
30
20
10
0
Bush
Dumping in sea
Garbage hole
Others

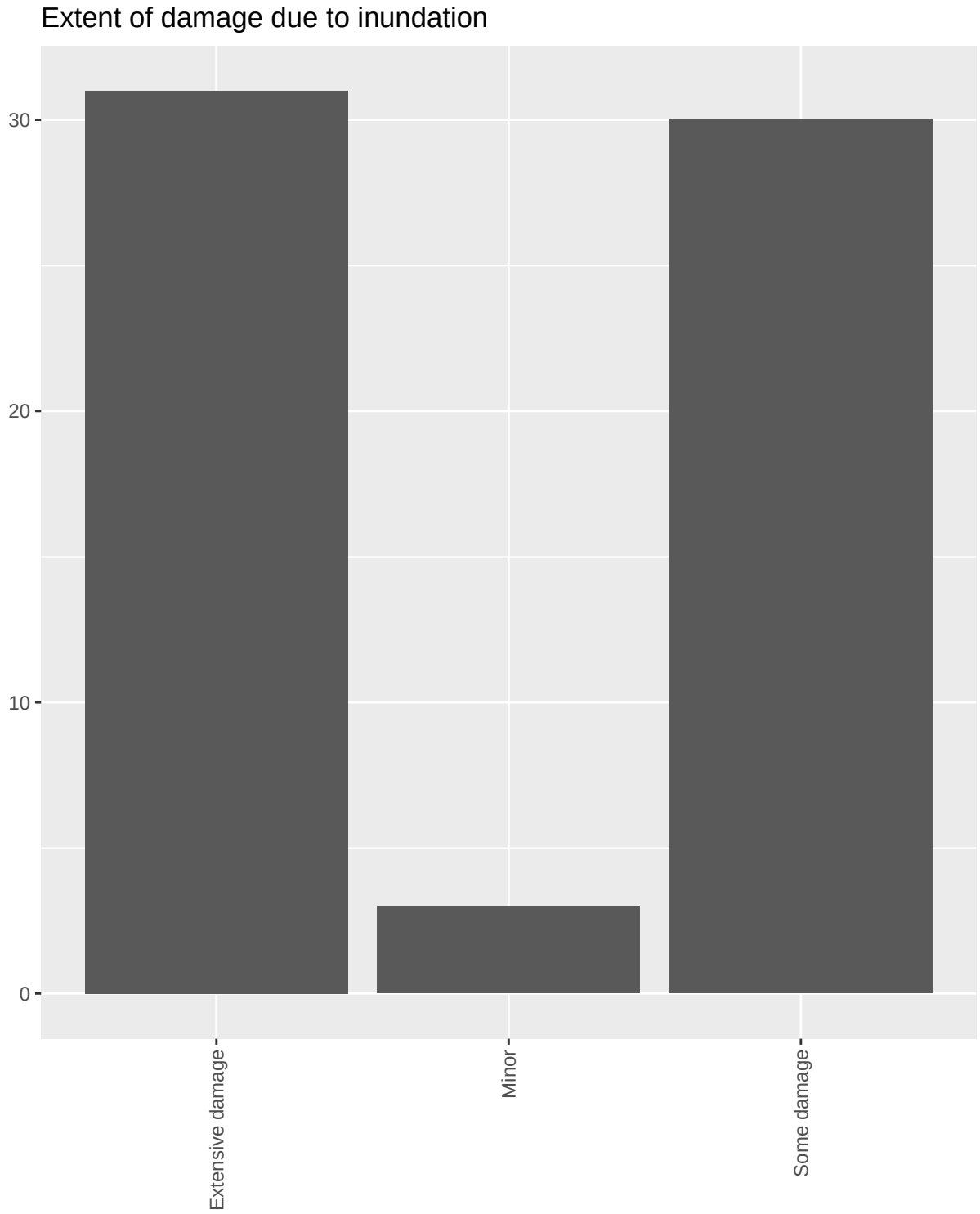

Method of disposing garbage
30
20
10
0
Burning trash
Garbage hole
Other disposal method
Sea
Village dump

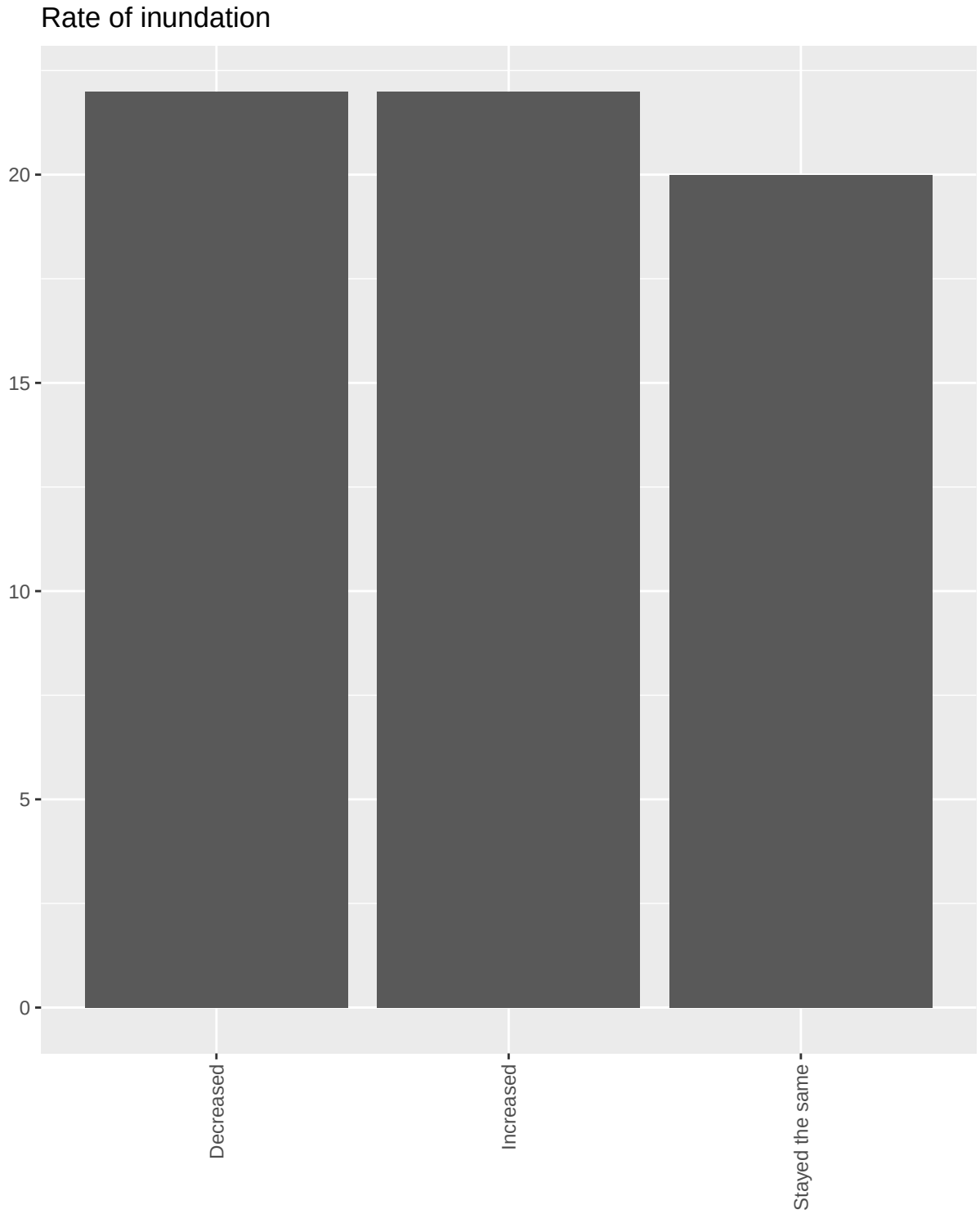

Fee for garbage collection
90
60
30
0
No
Yes

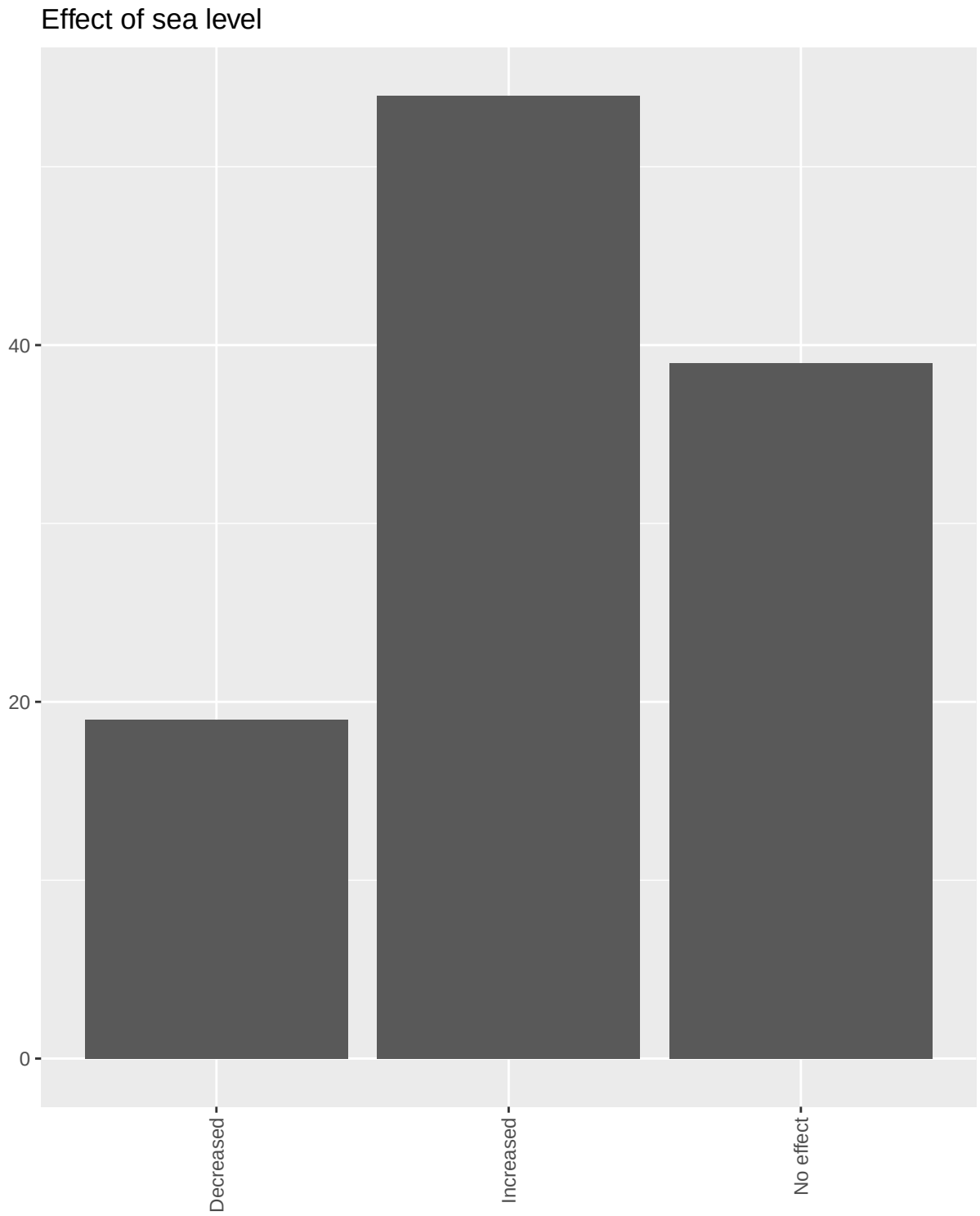

Livelihood of people
75
50
25
0
Better
Stayed the same
Worse

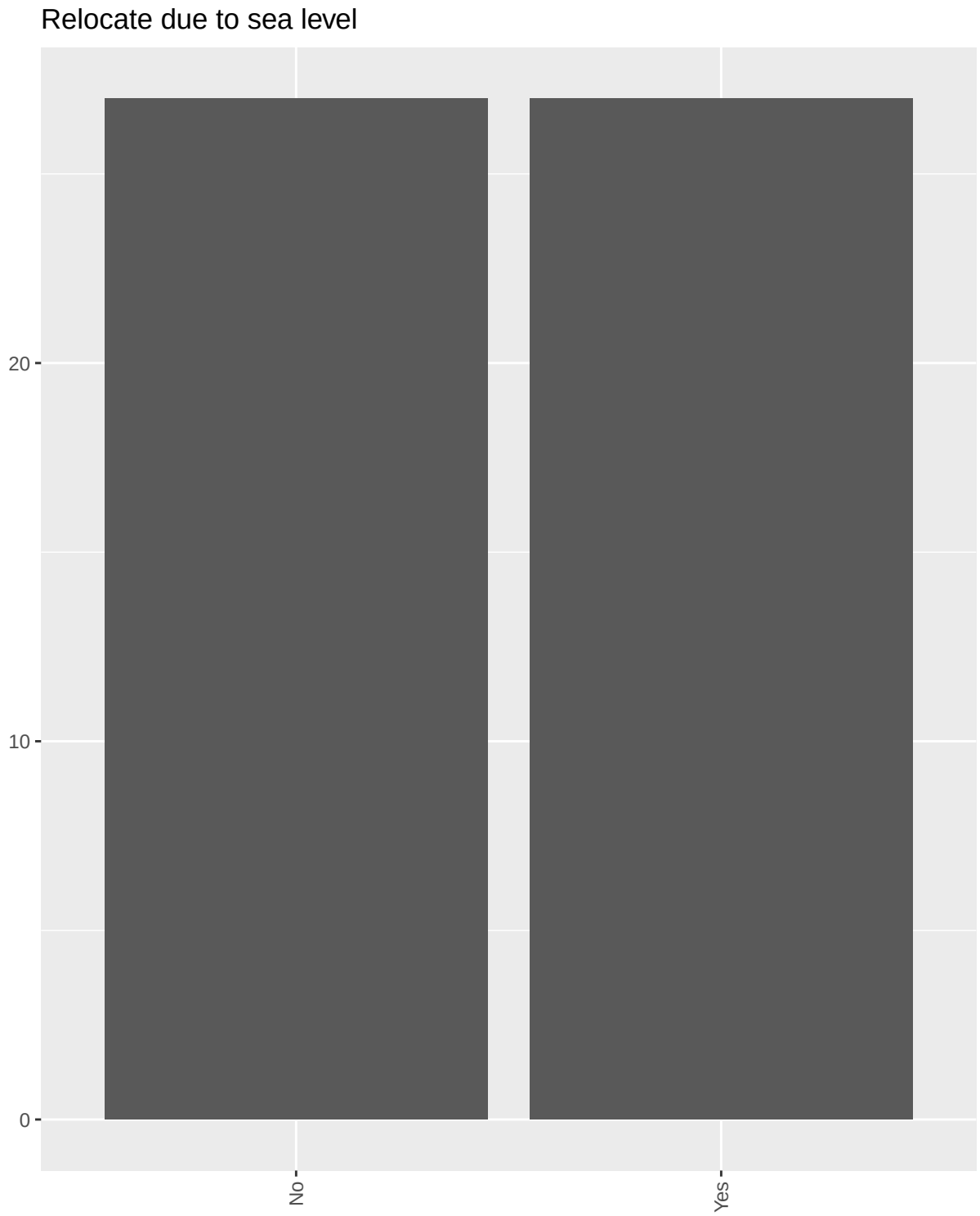

Salt water inundation
60
40
20
0
No
Yes

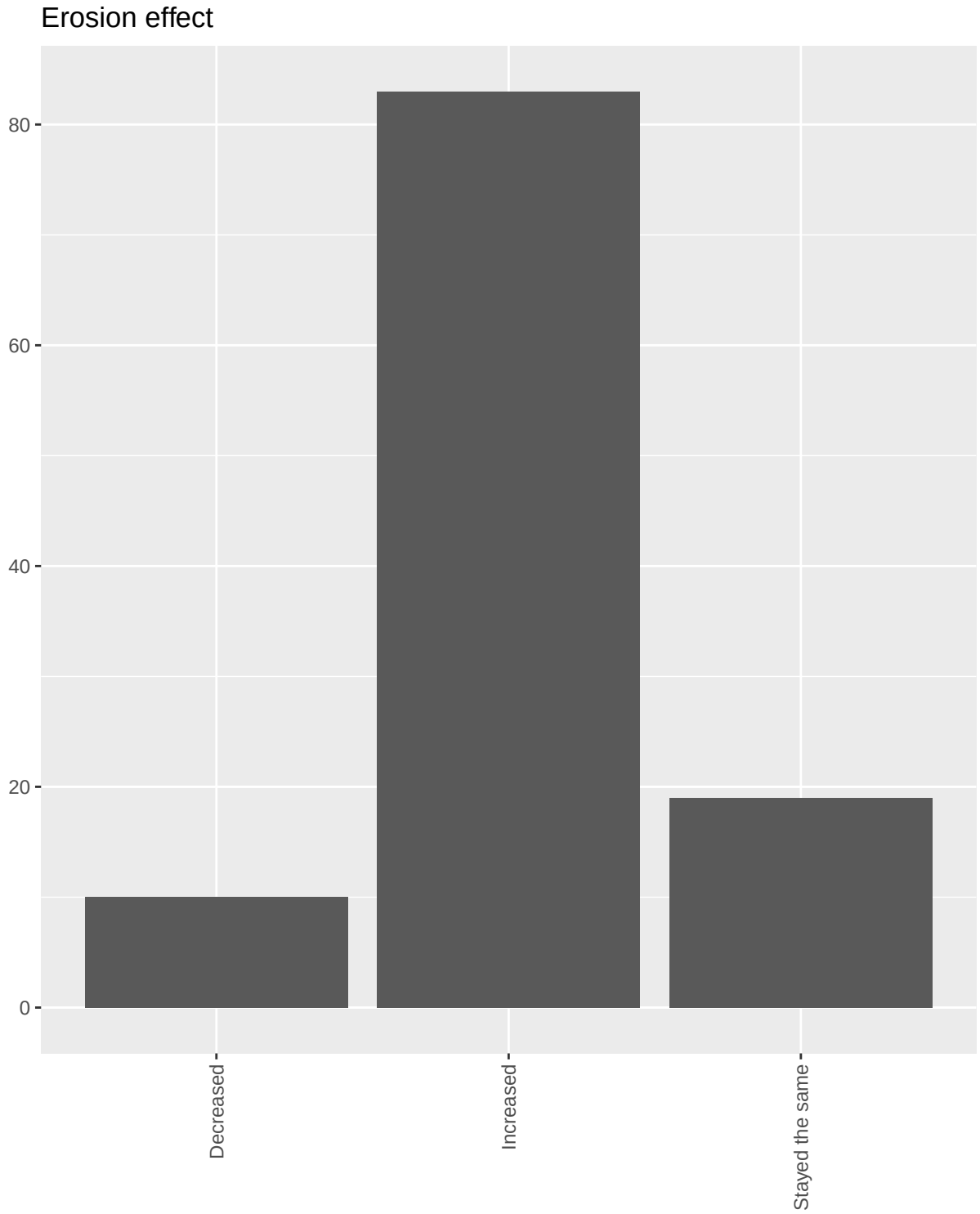

Frequency of inundation
50
40
30
20
10
0
Almost every month
During heavy rain
During high tide
Frequently
Other (specify)

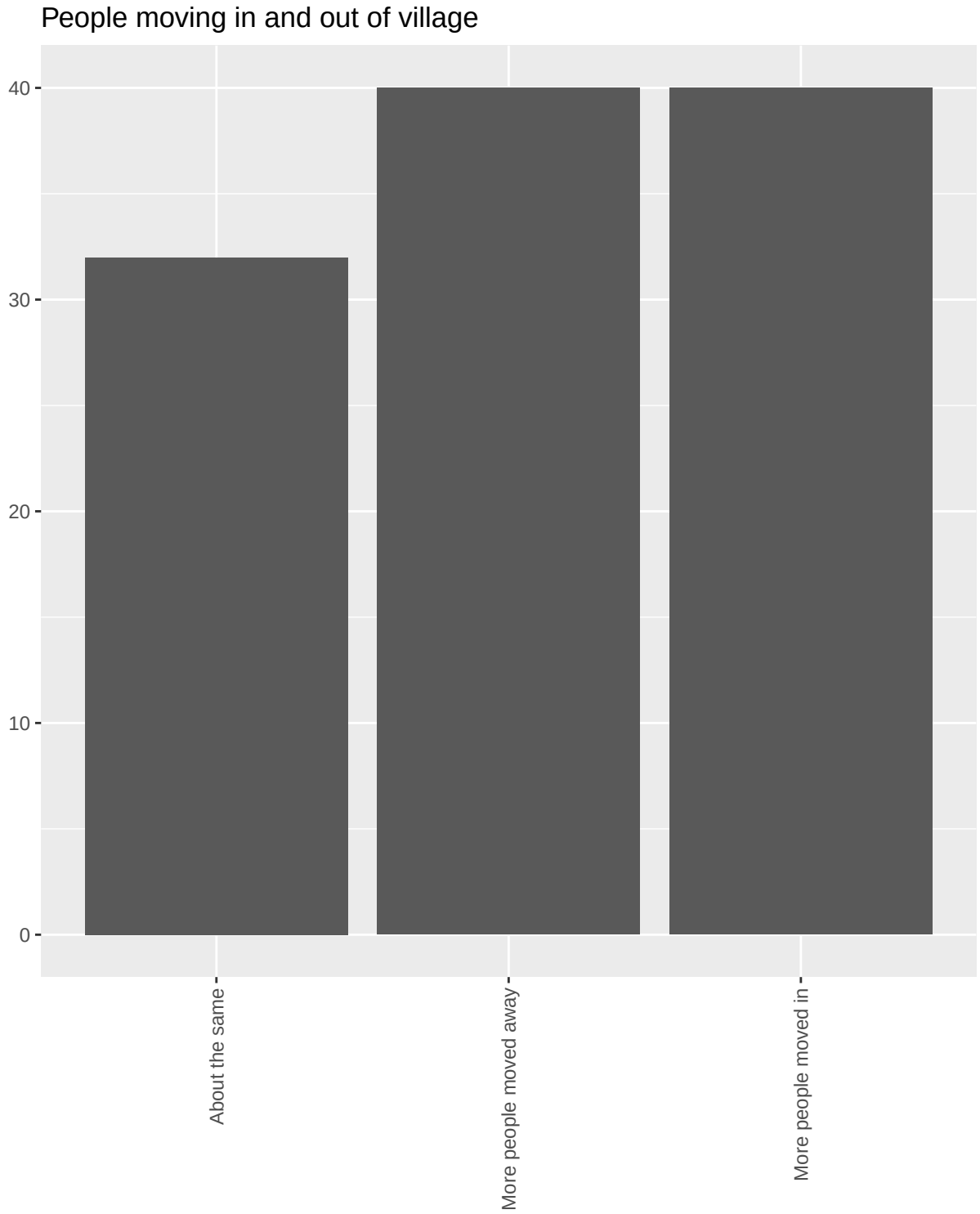

Extent of damage due to inundation
30
20
10
0
Extensive damage
Minor
Some damage

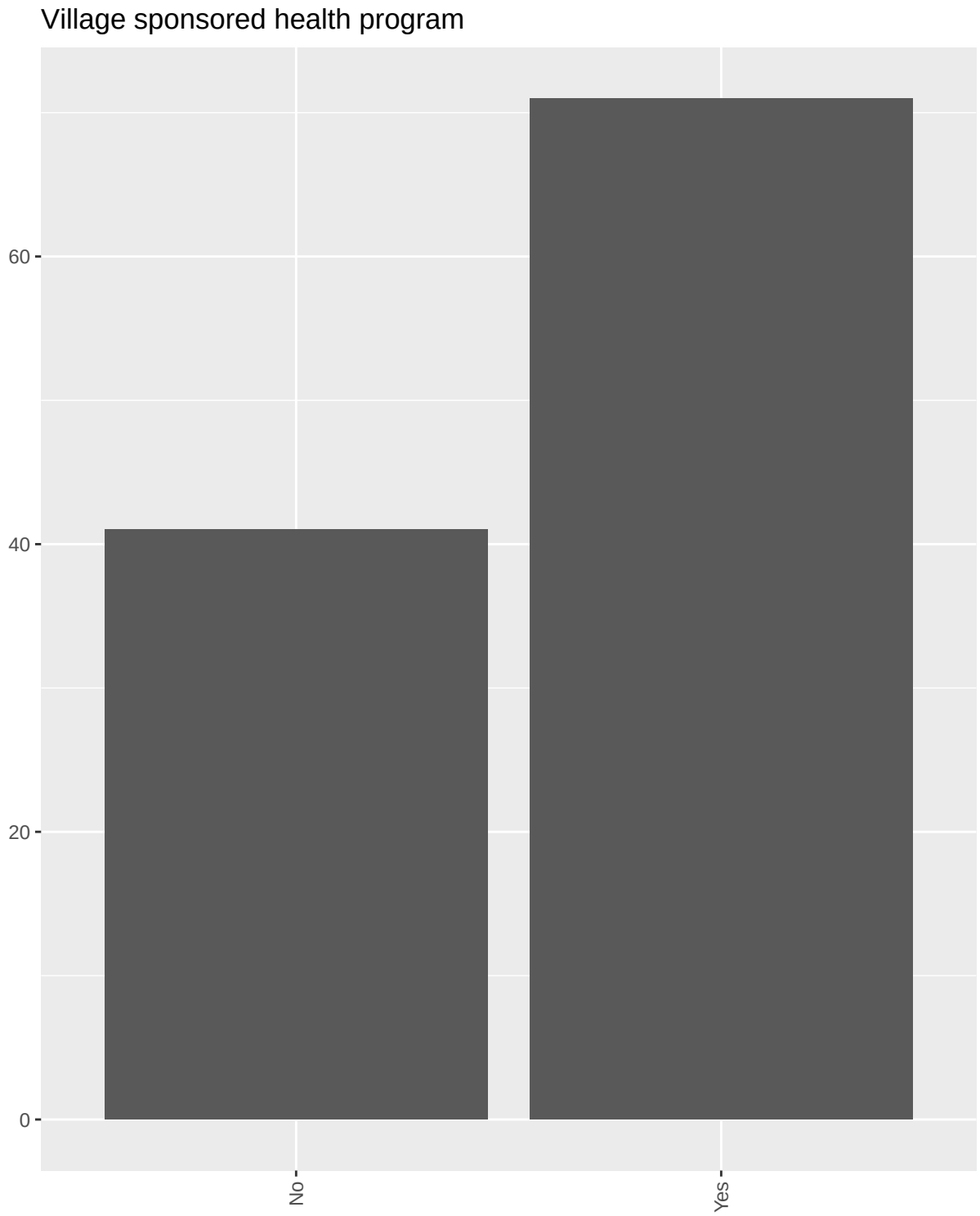

Rate of inundation
20
15
10
5
0
Decreased
Increased
Stayed the same

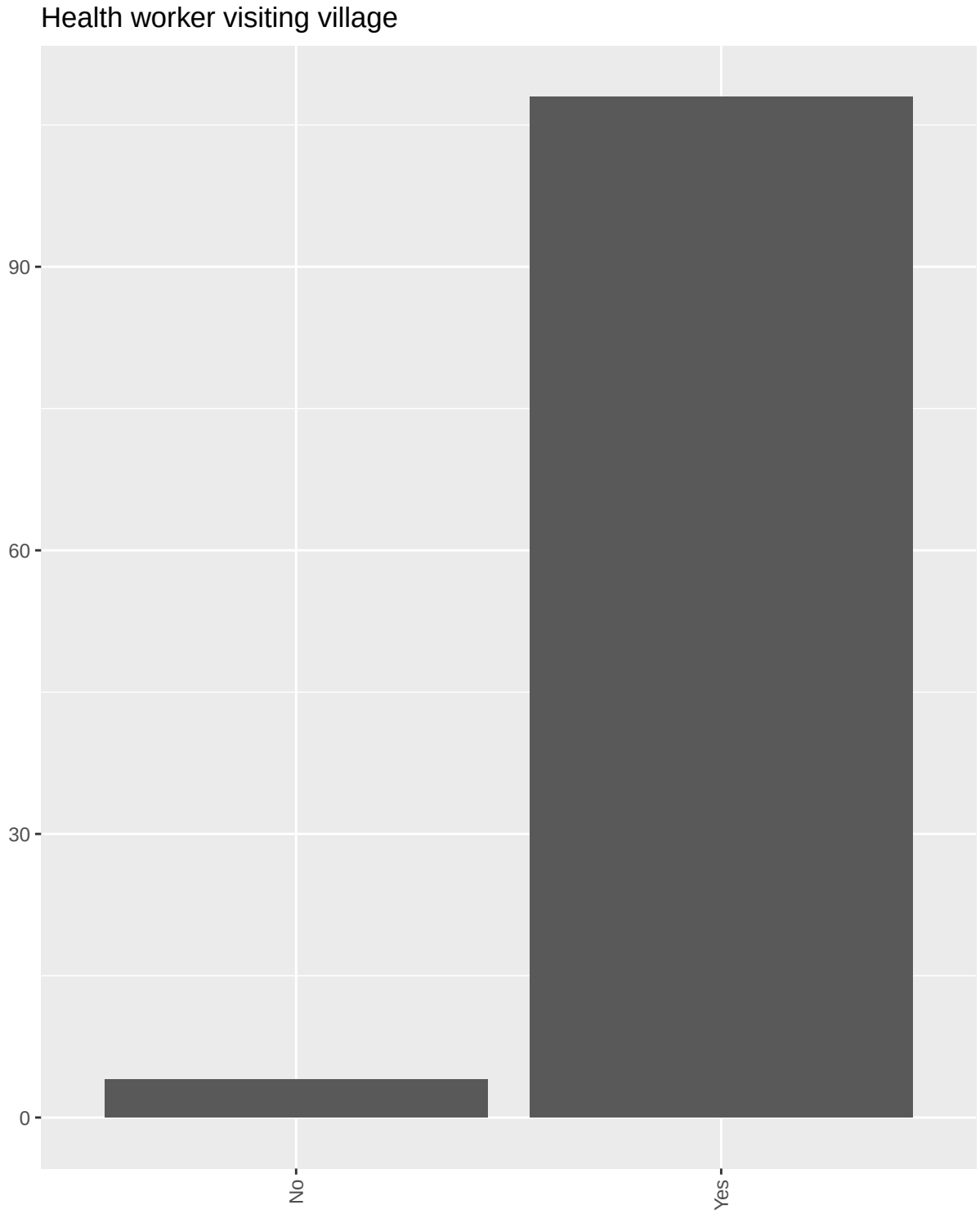

Effect of sea level
40
20
0
Decreased
Increased
No effect

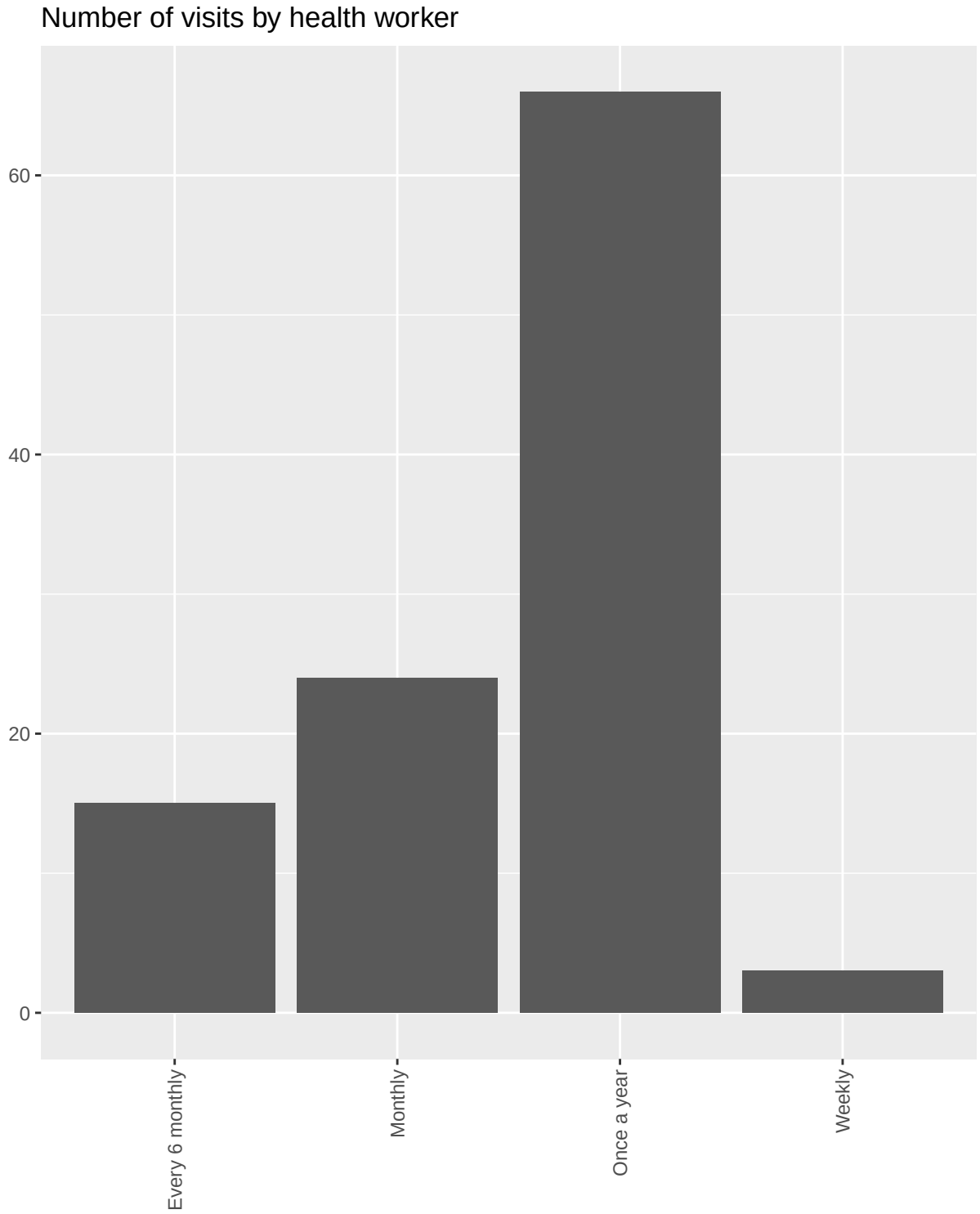

Relocate due to sea level
20
10
0
No
Yes

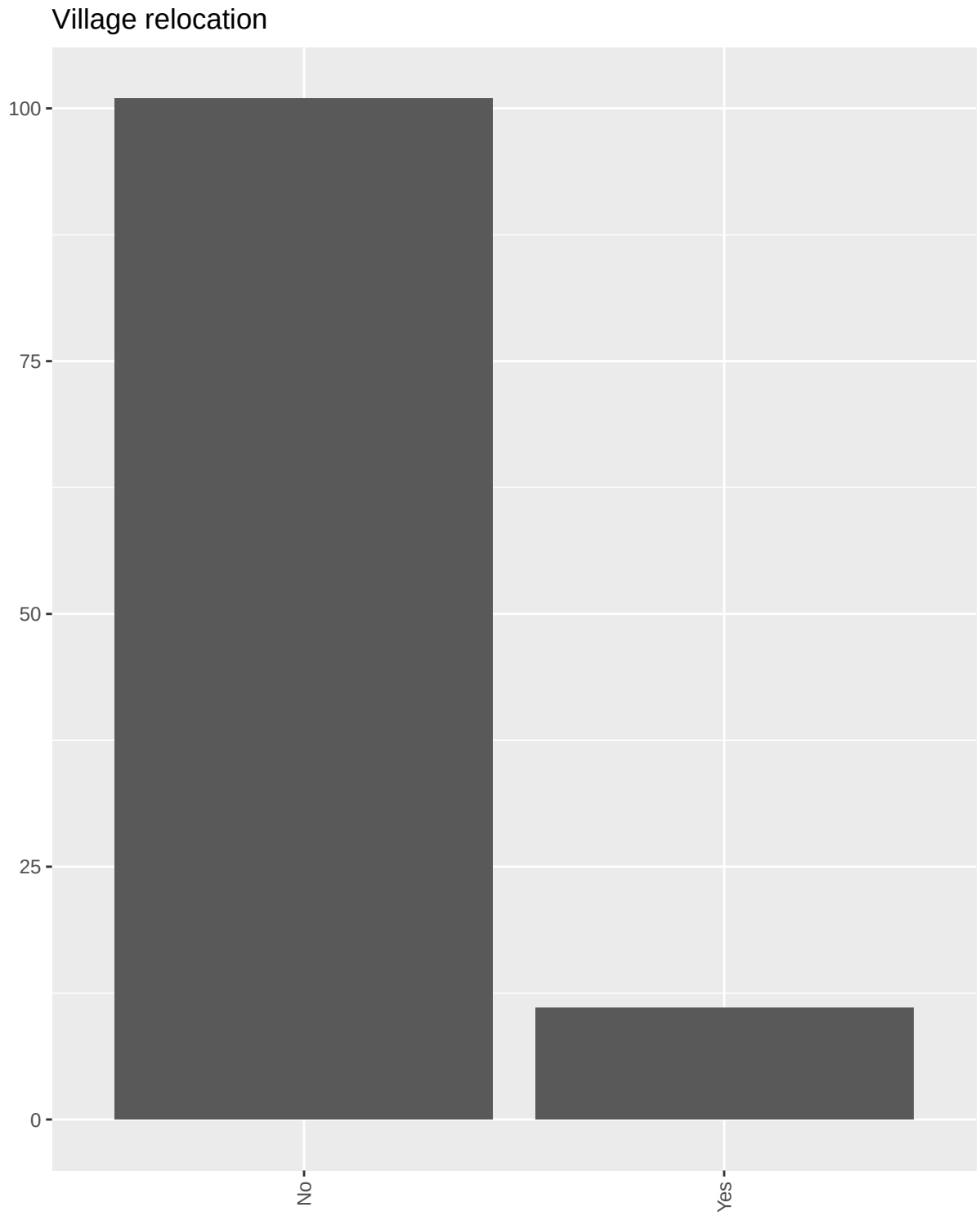

Erosion effect
80
60
40
20
0
Decreased
Increased
Stayed the same

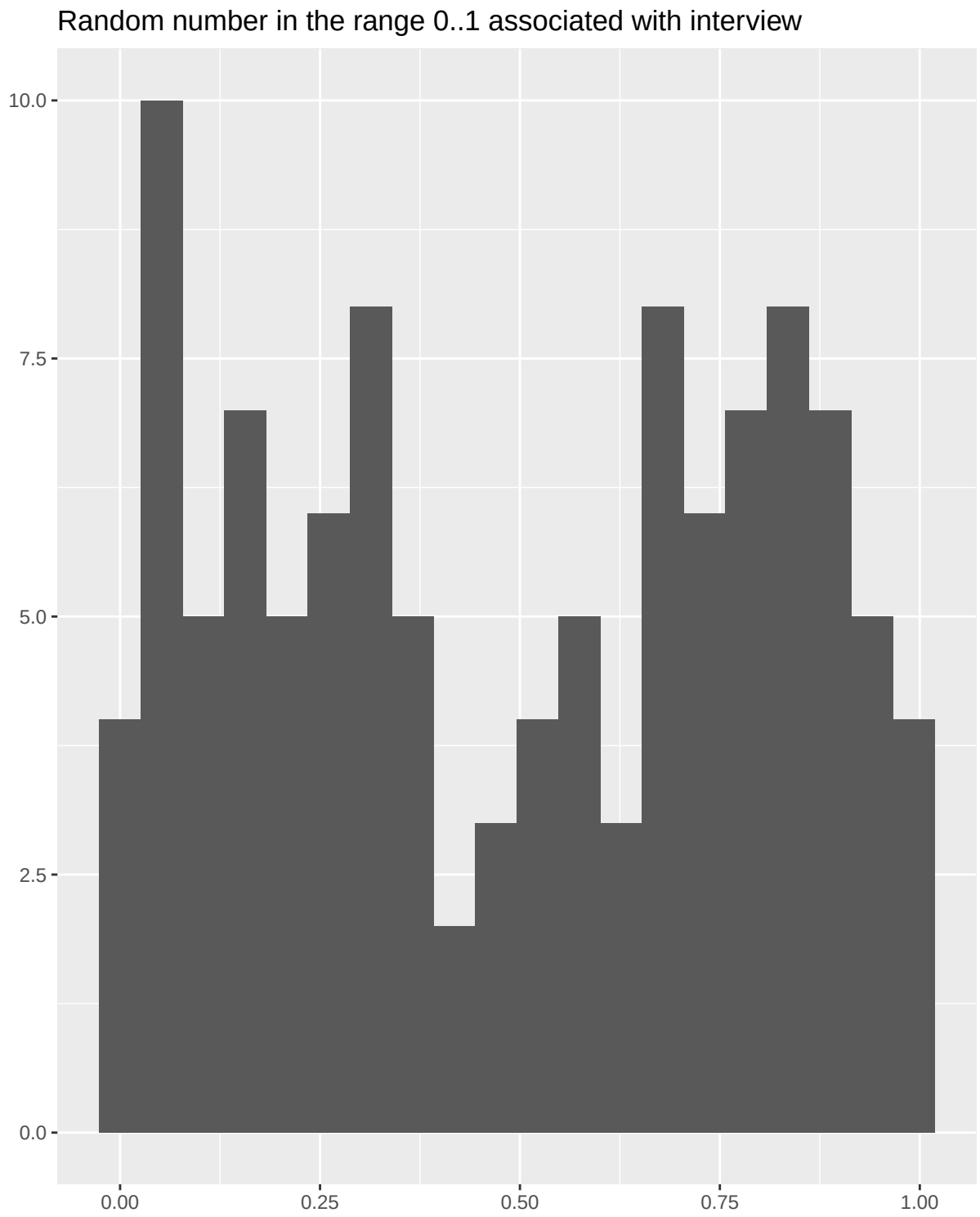

People moving in and out of village
40
30
20
10
0
About the same
More people moved away
More people moved in

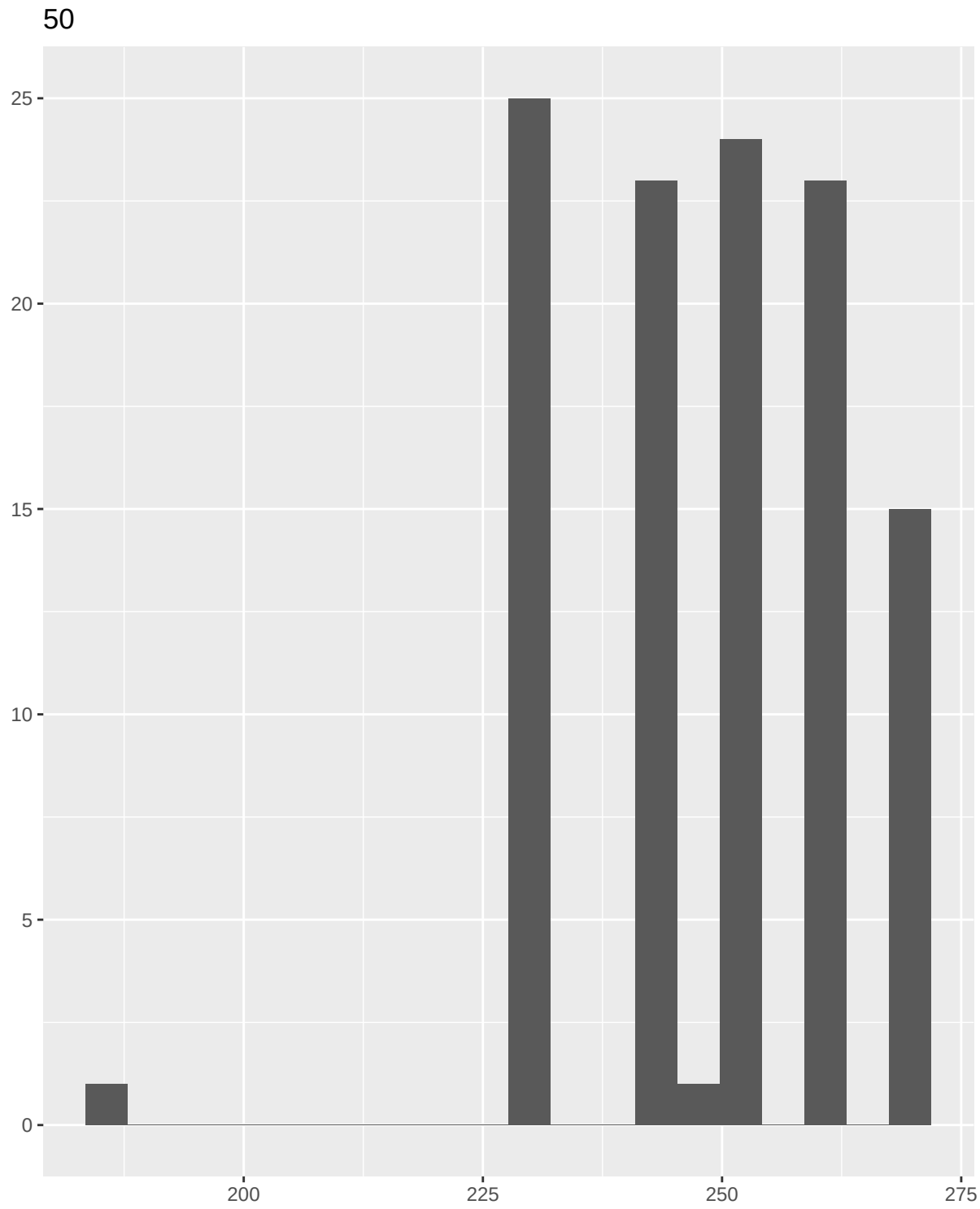

Village sponsored health program
60
40
20
0
No
Yes

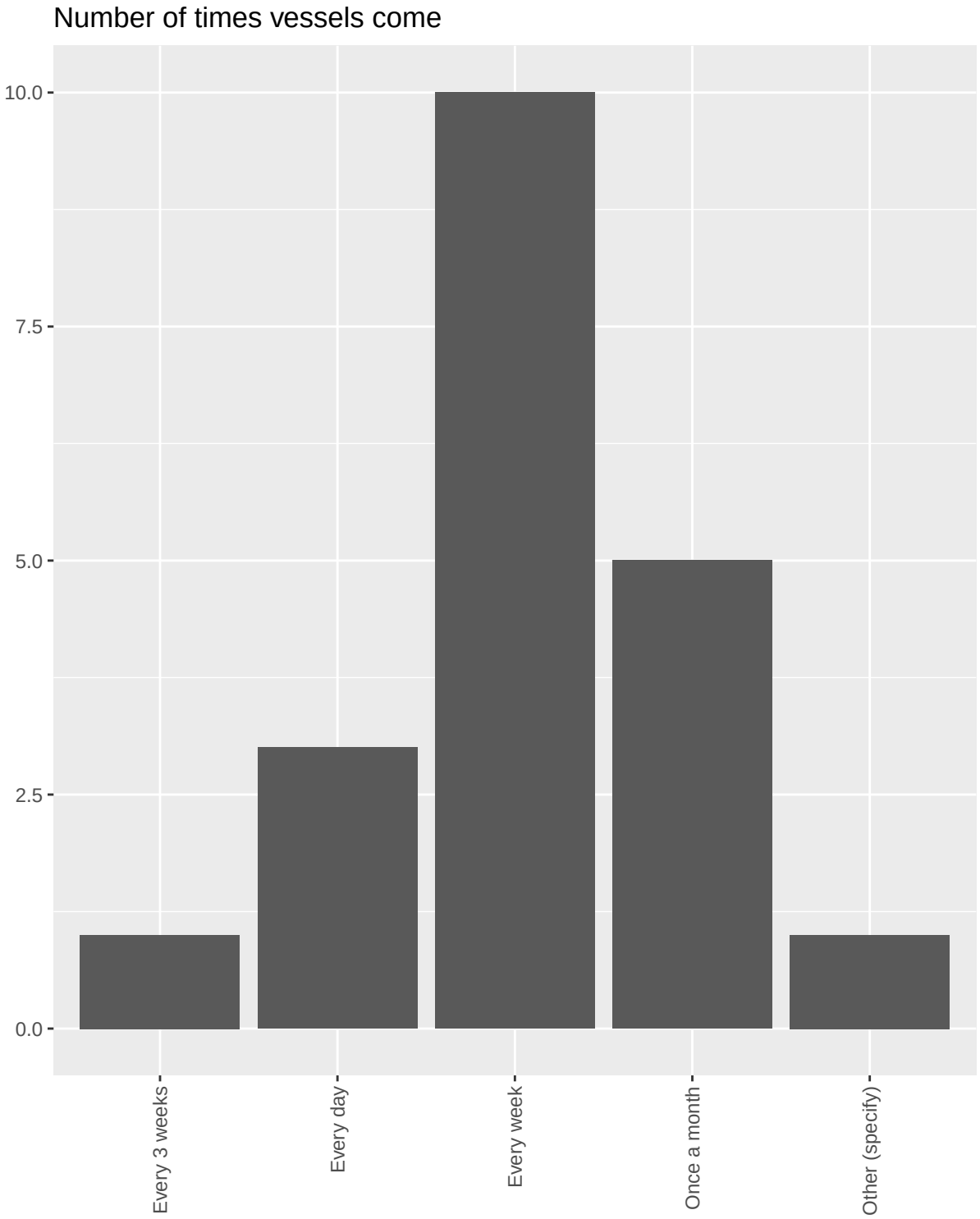

Health worker visiting village
90
60
30
0
No
Yes

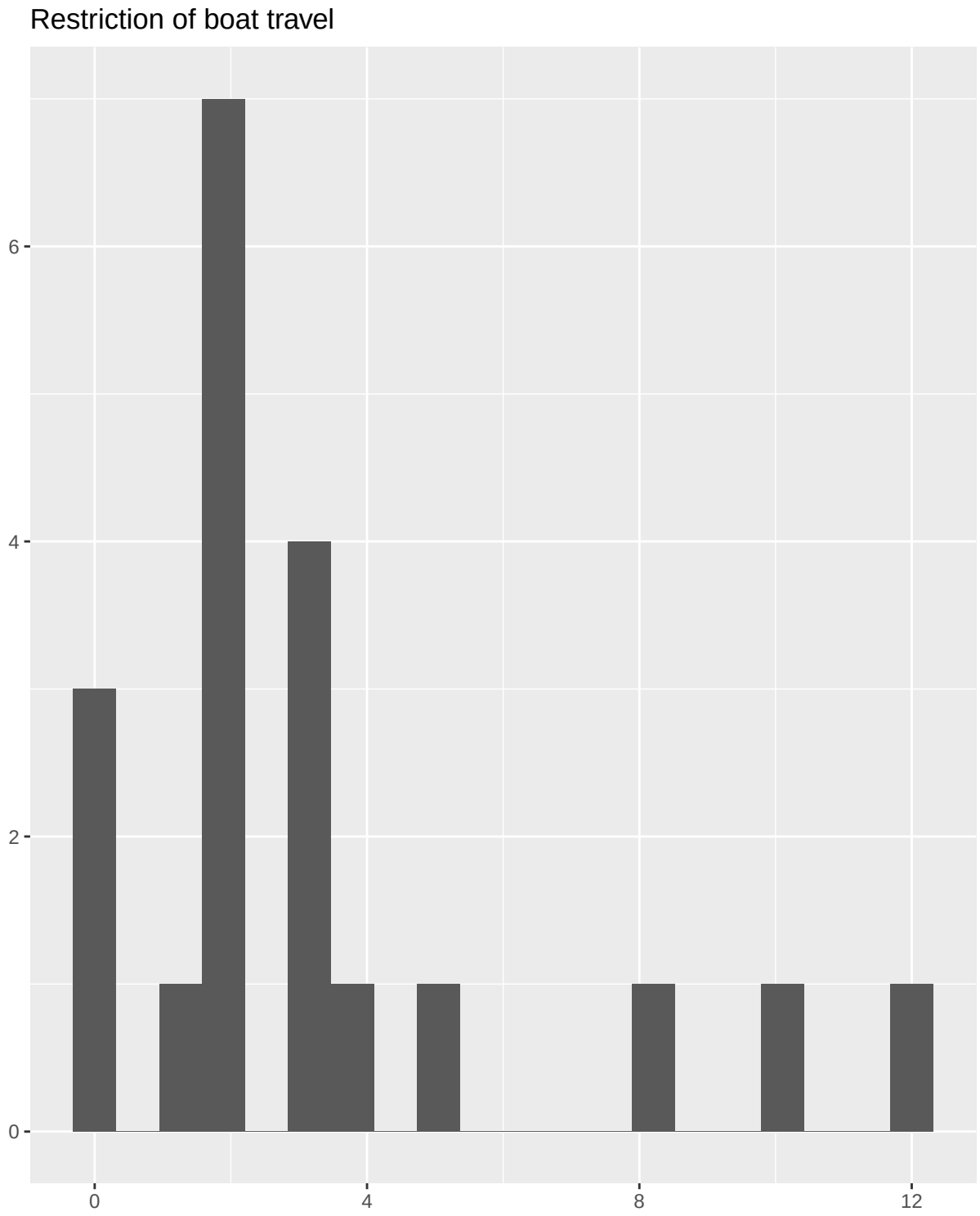

Number of visits by health worker
60
40
20
0
Every 6 monthly
Monthly
Once a year
Weekly

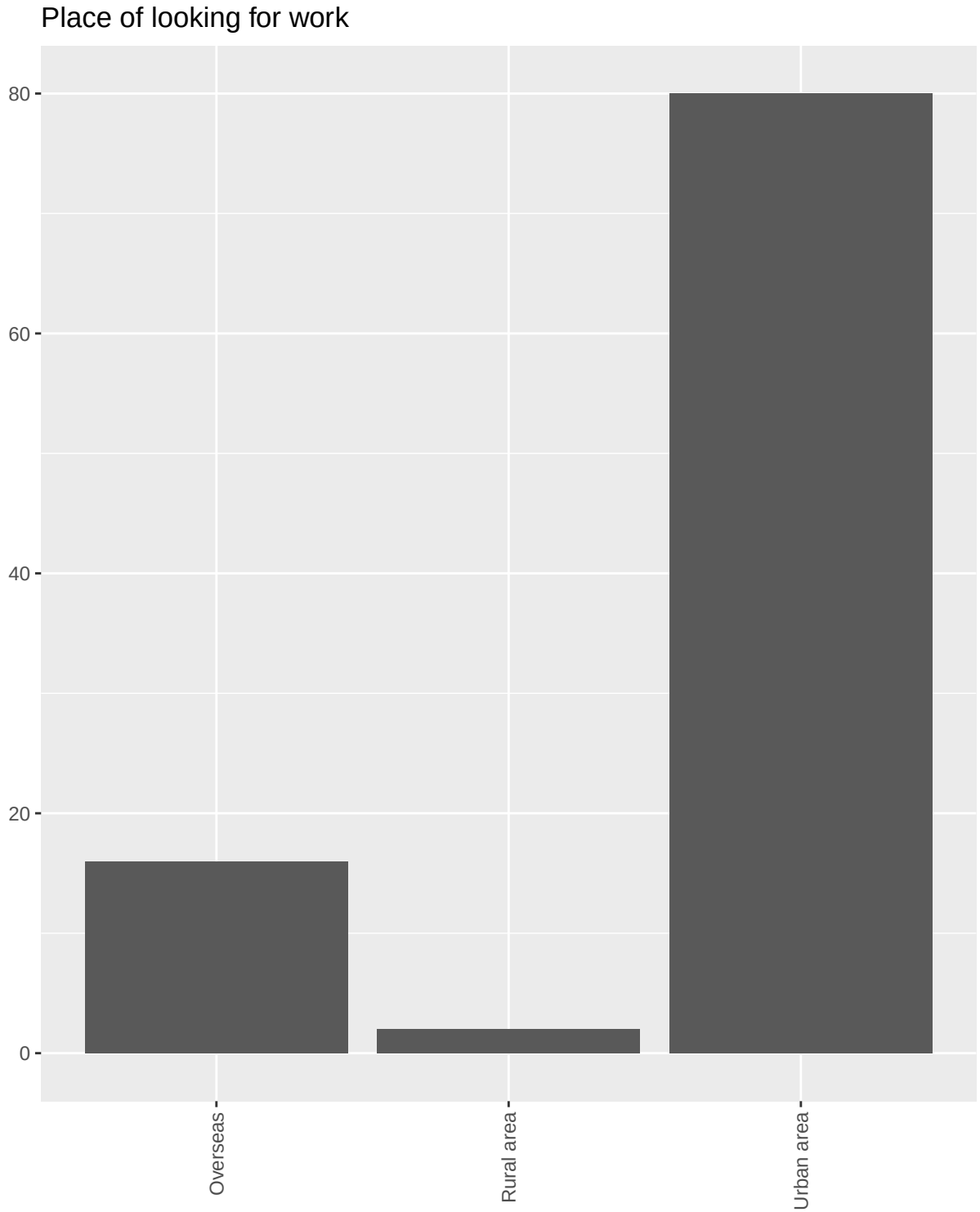

Village relocation
100
75
50
25
0
No
Yes

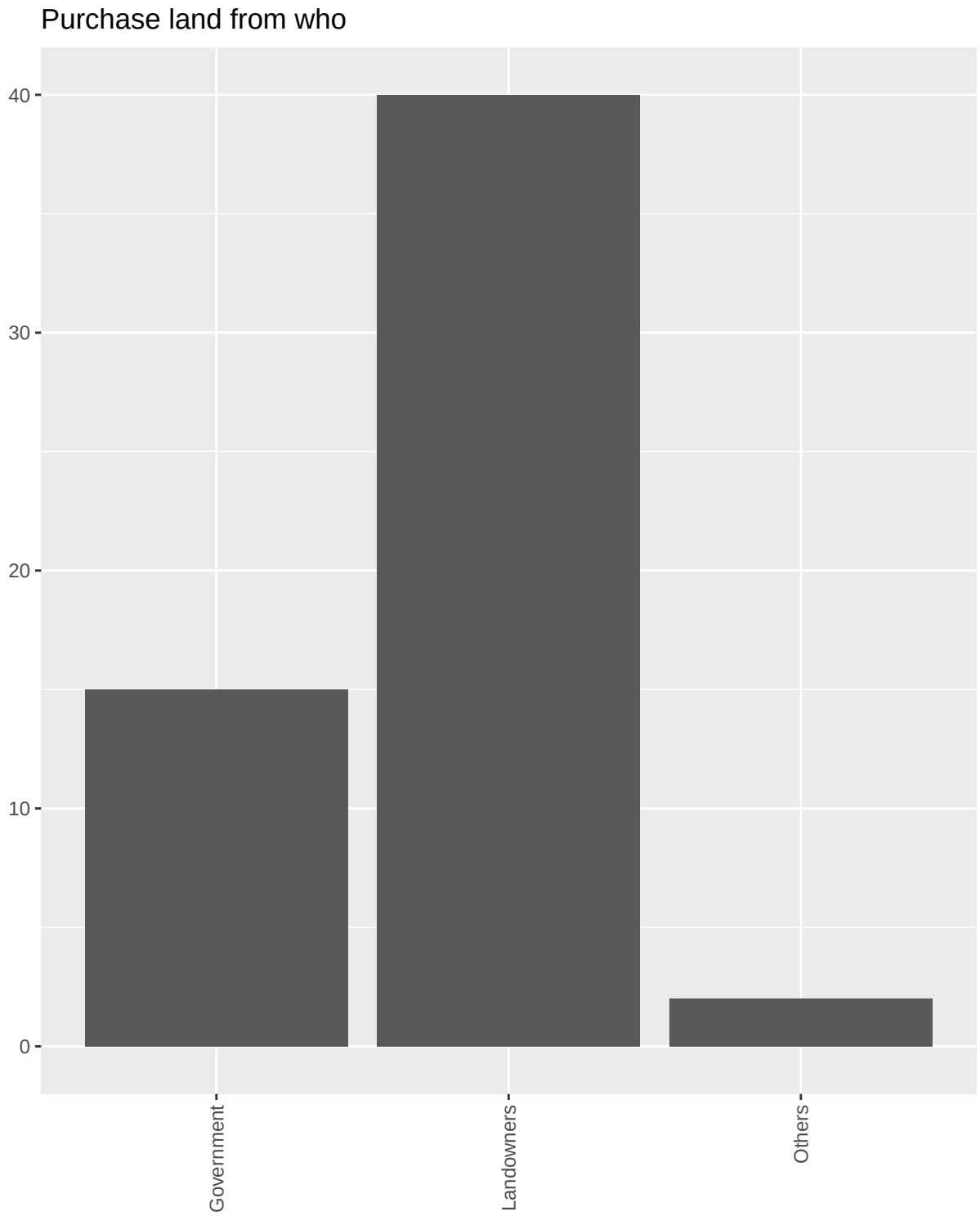

Random number in the range 0..1 associated with interview
10.0
7.5
5.0
2.5
0.0
0.00
0.25
0.50
0.75
1.00

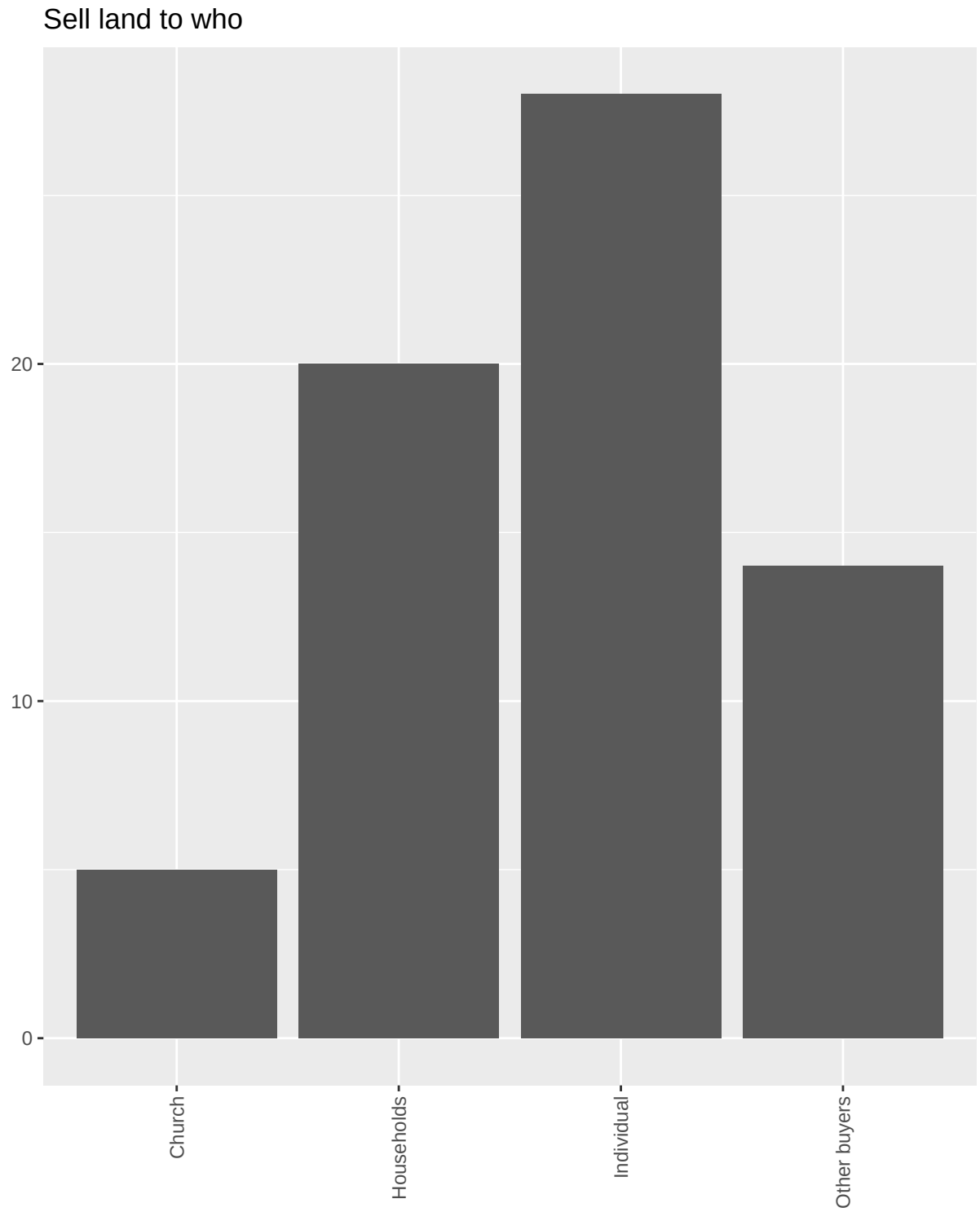

50
25
20
15
10
5
0
200
225
250
275

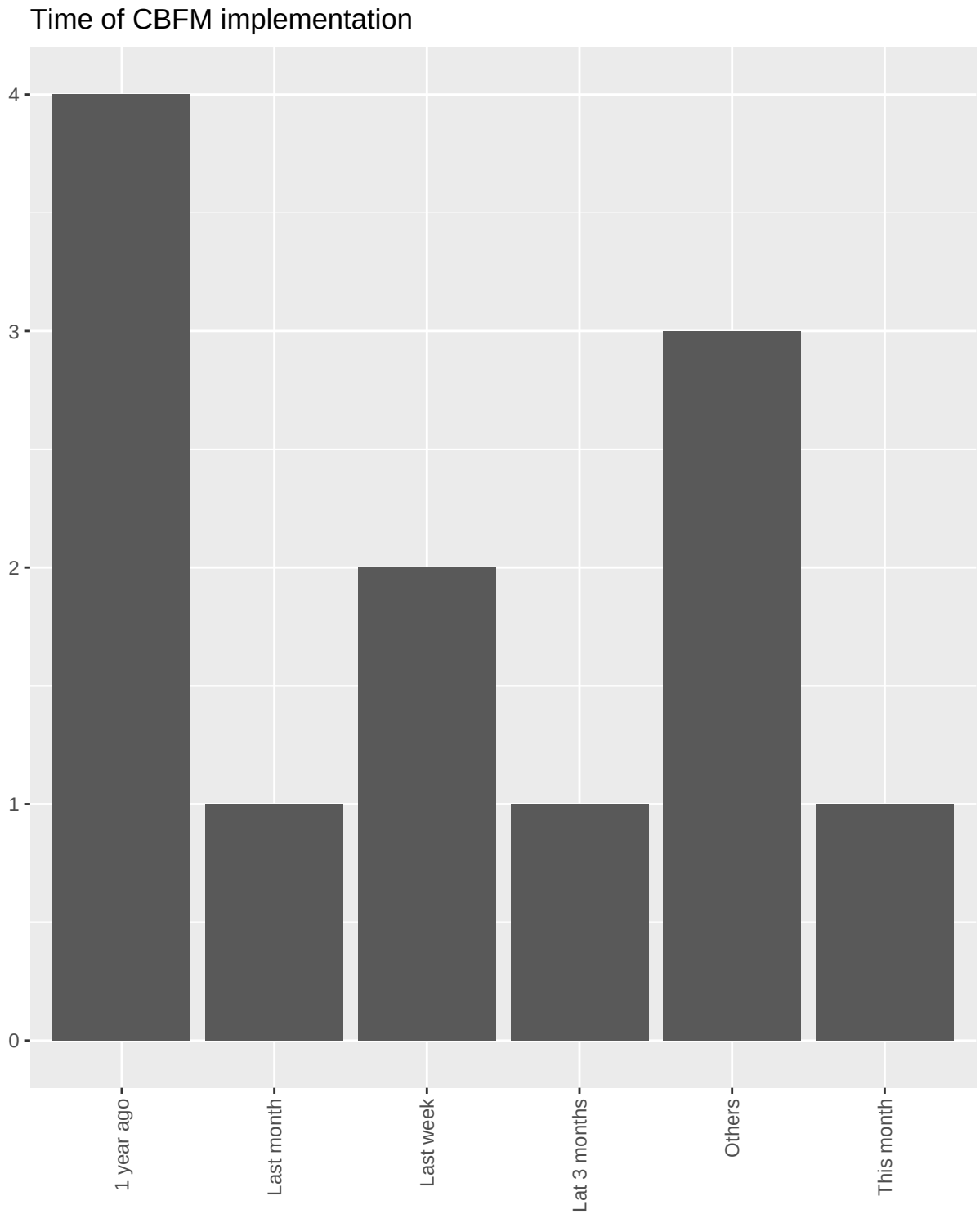

Number of times vessels come
10.0
7.5
5.0
2.5
0.0
Every 3 weeks
Every day
Every week
Once a month
Other (specify)

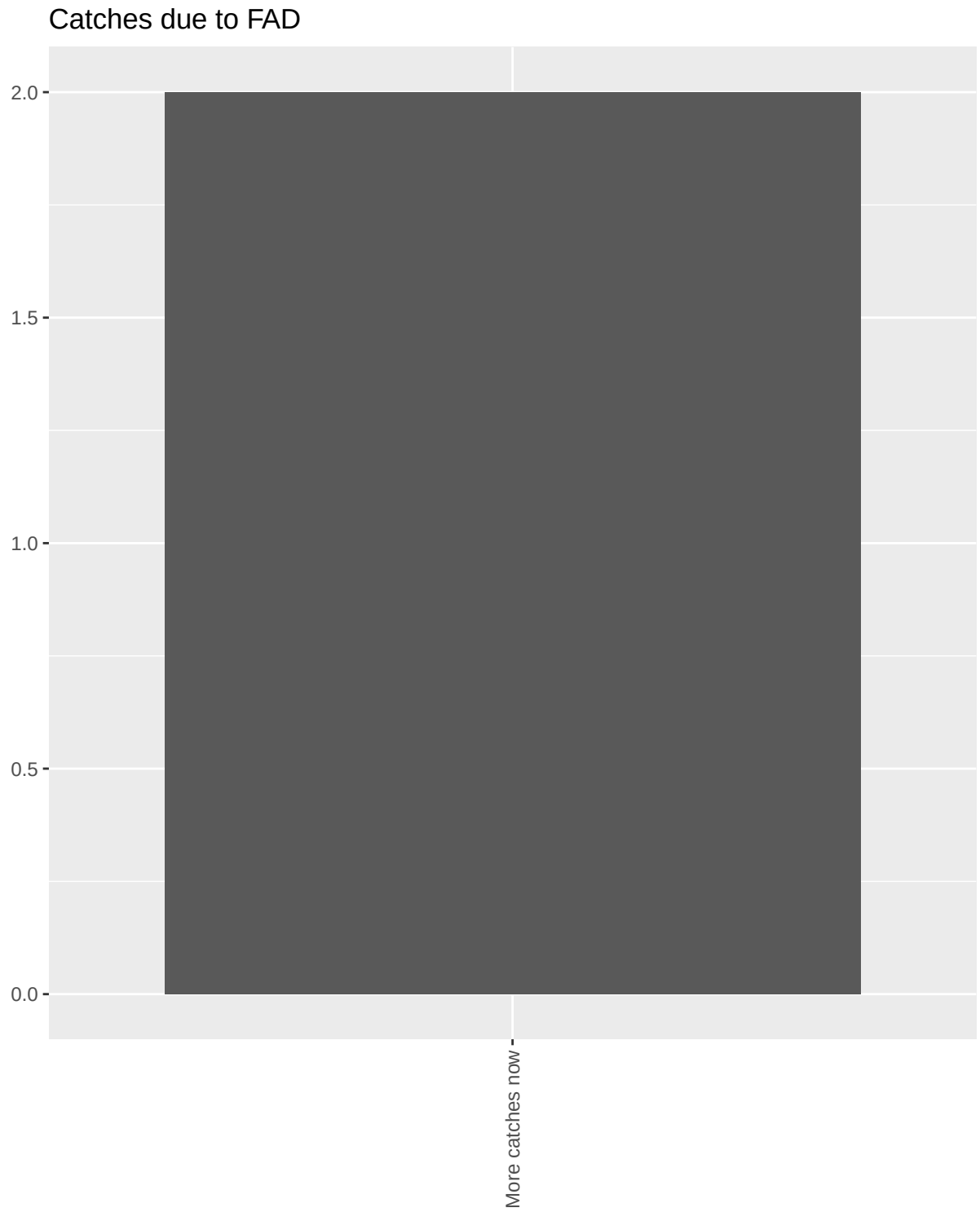

Restriction of boat travel
6
4
2
0
0
4
8
12

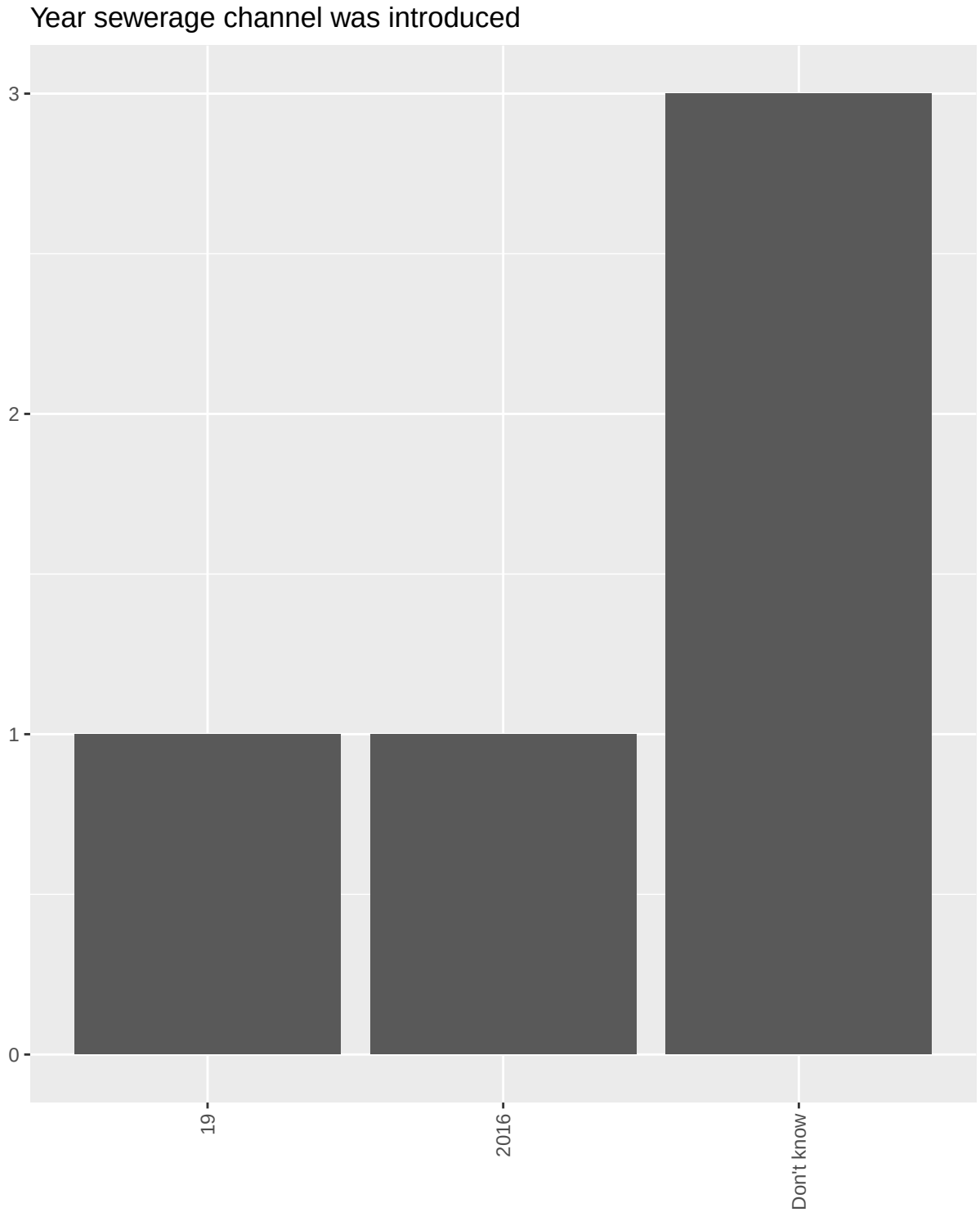

Place of looking for work
80
60
40
20
0
Overseas
Rural area
Urban area

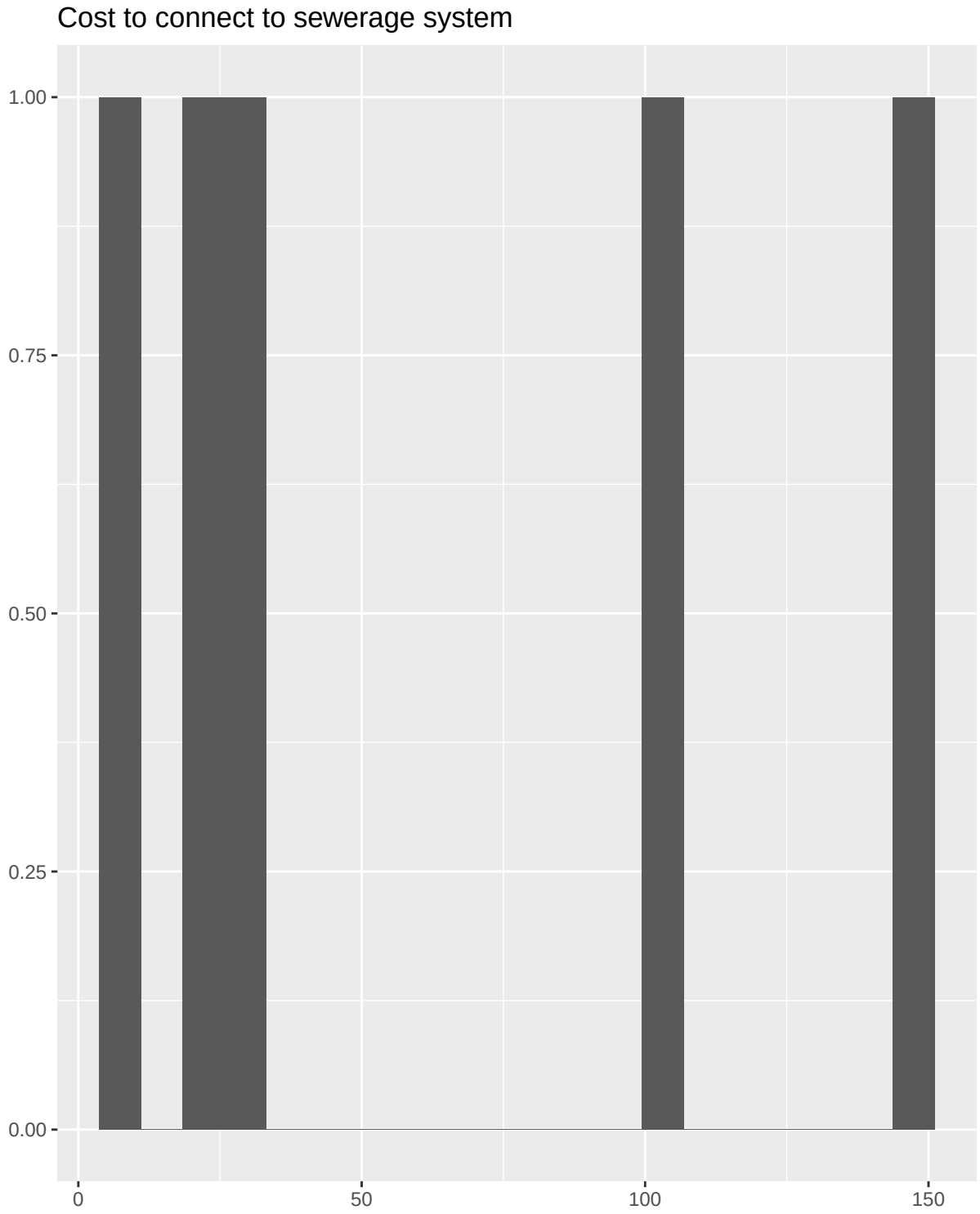

Purchase land from who
40
30
20
10
0
Government
Landowners
Others

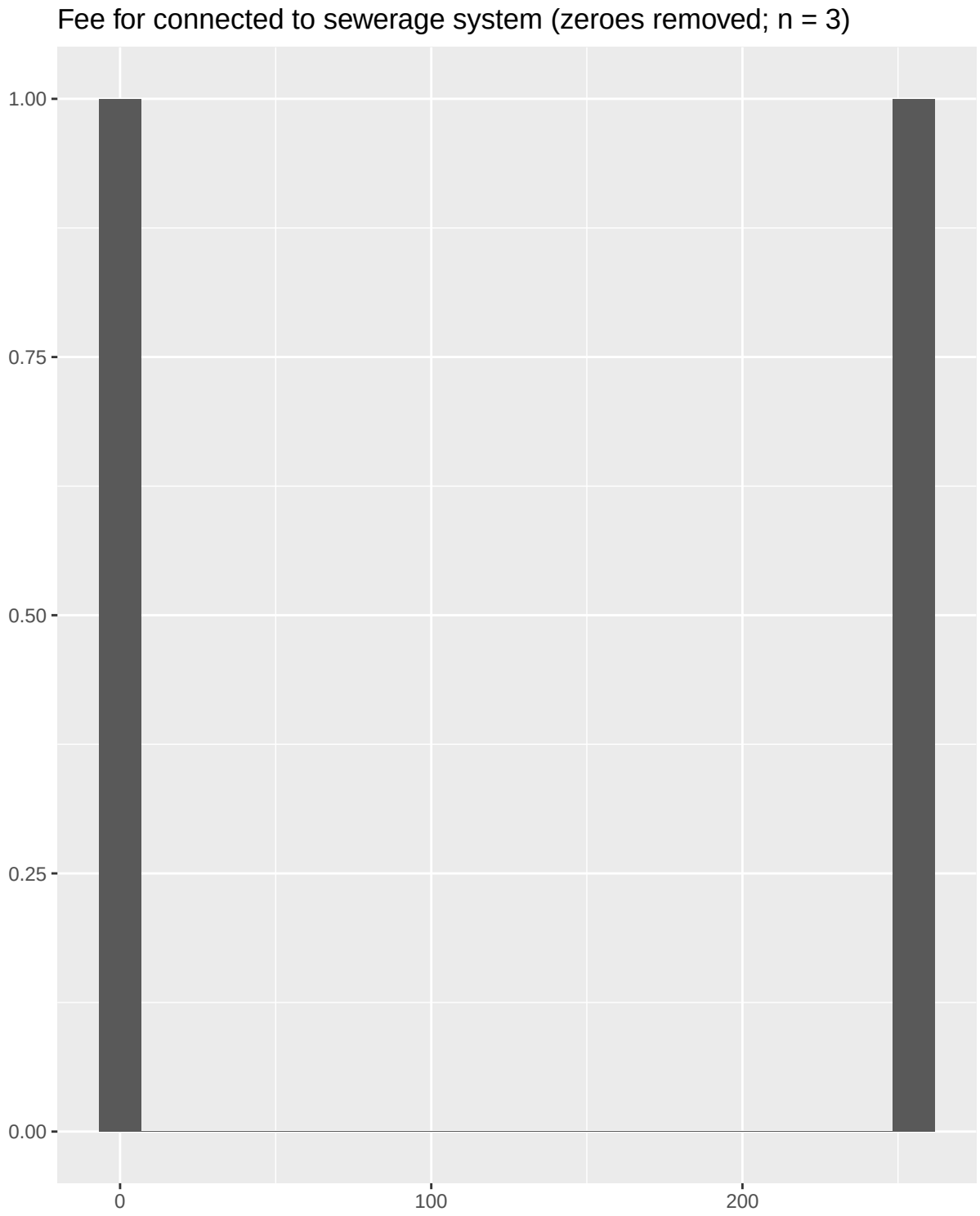

Sell land to who
20
10
0
Church
Households
Individual
Other buyers

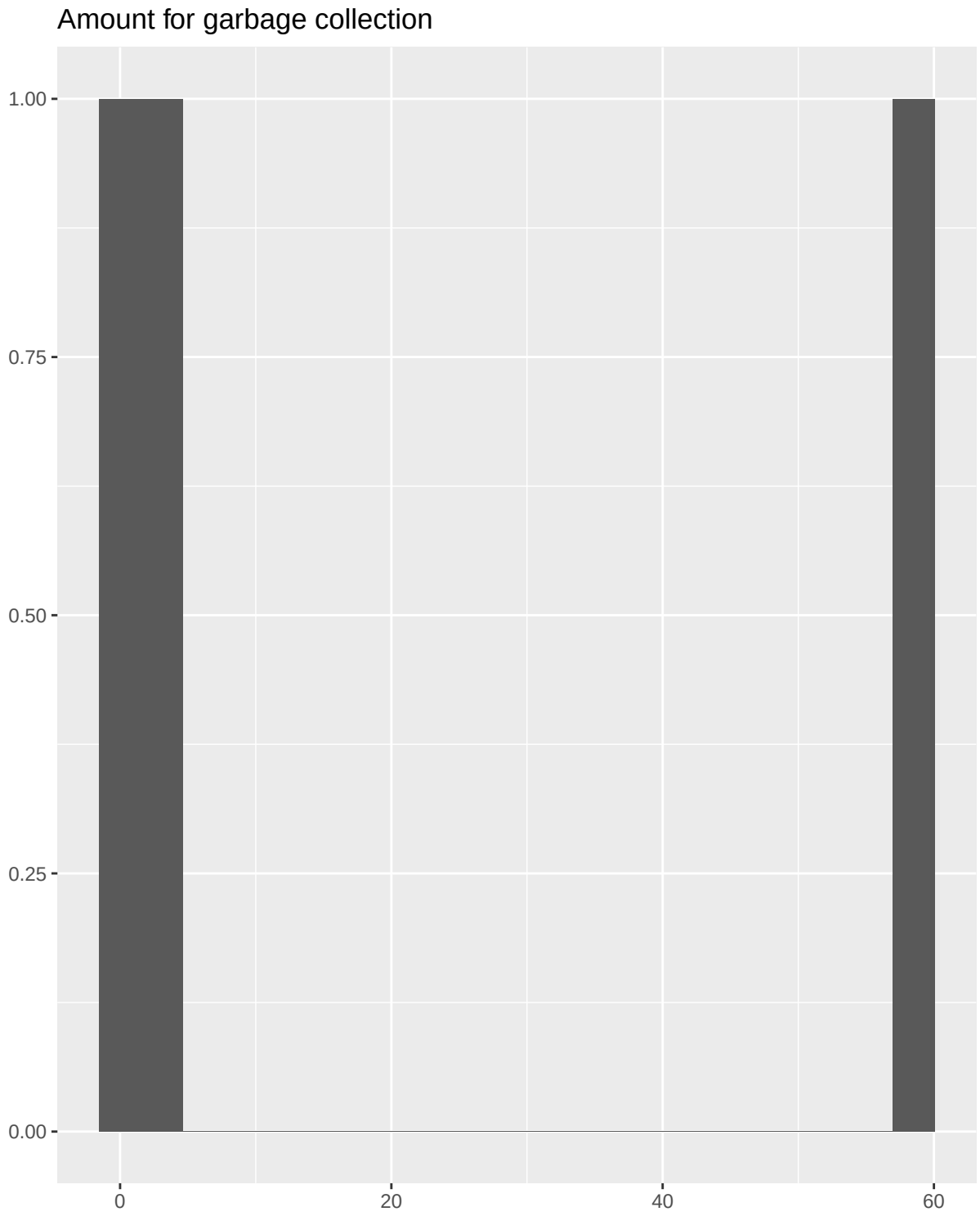

Time of CBFM implementation
4
3
2
1
0
1 year ago
Last month
Last week
Lat 3 months
Others
This month


Catches due to FAD
2.0
1.5
1.0
0.5
0.0
More catches now


Year sewerage channel was introduced
3
2
1
0
19
2016
Don't know


Cost to connect to sewerage system
1.00
0.75
0.50
0.25
0.00
0
50
100
150

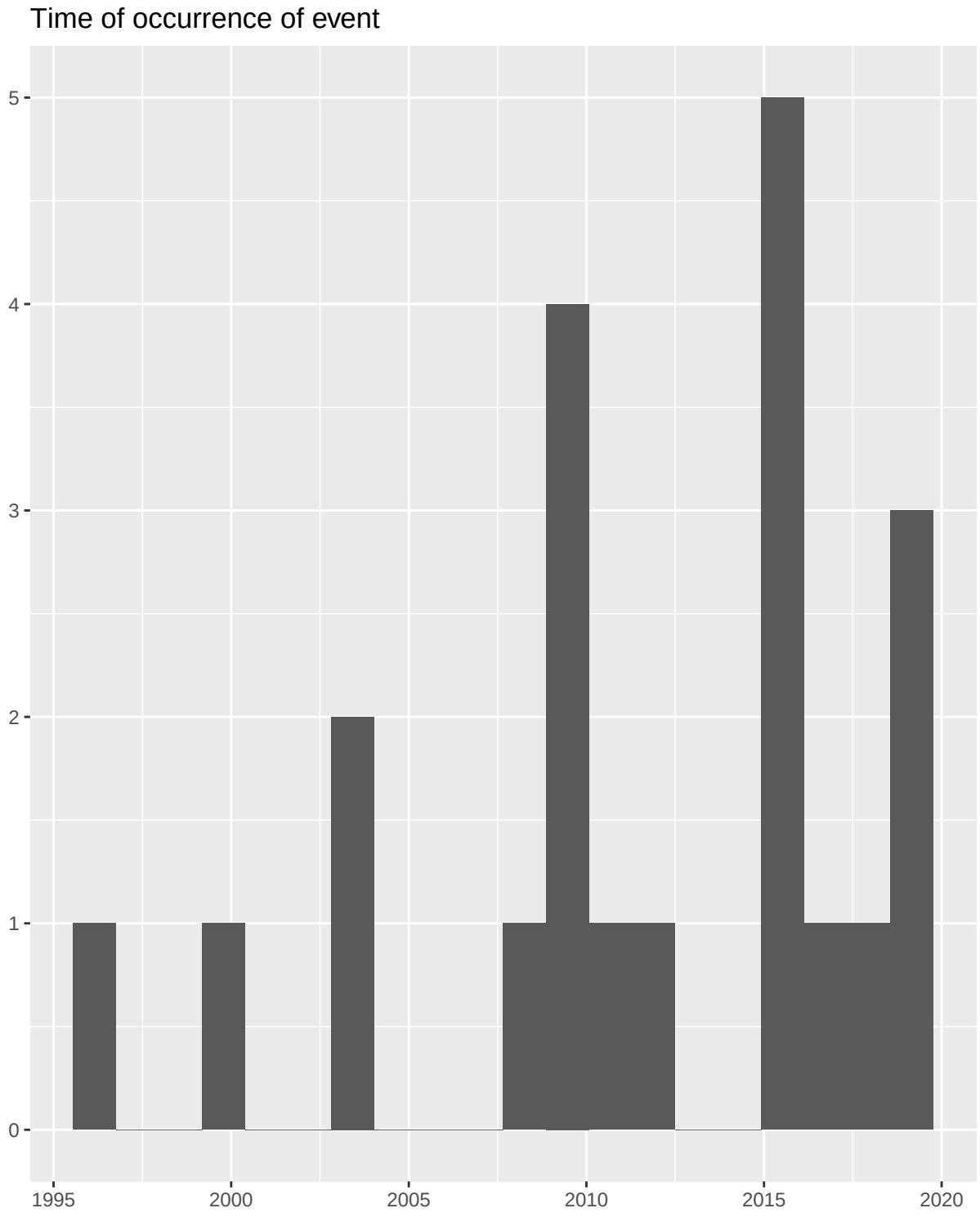

Fee for connected to sewerage system (zeroes removed; n = 3)
1.00
0.75
0.50
0.25
0.00
0
100
200

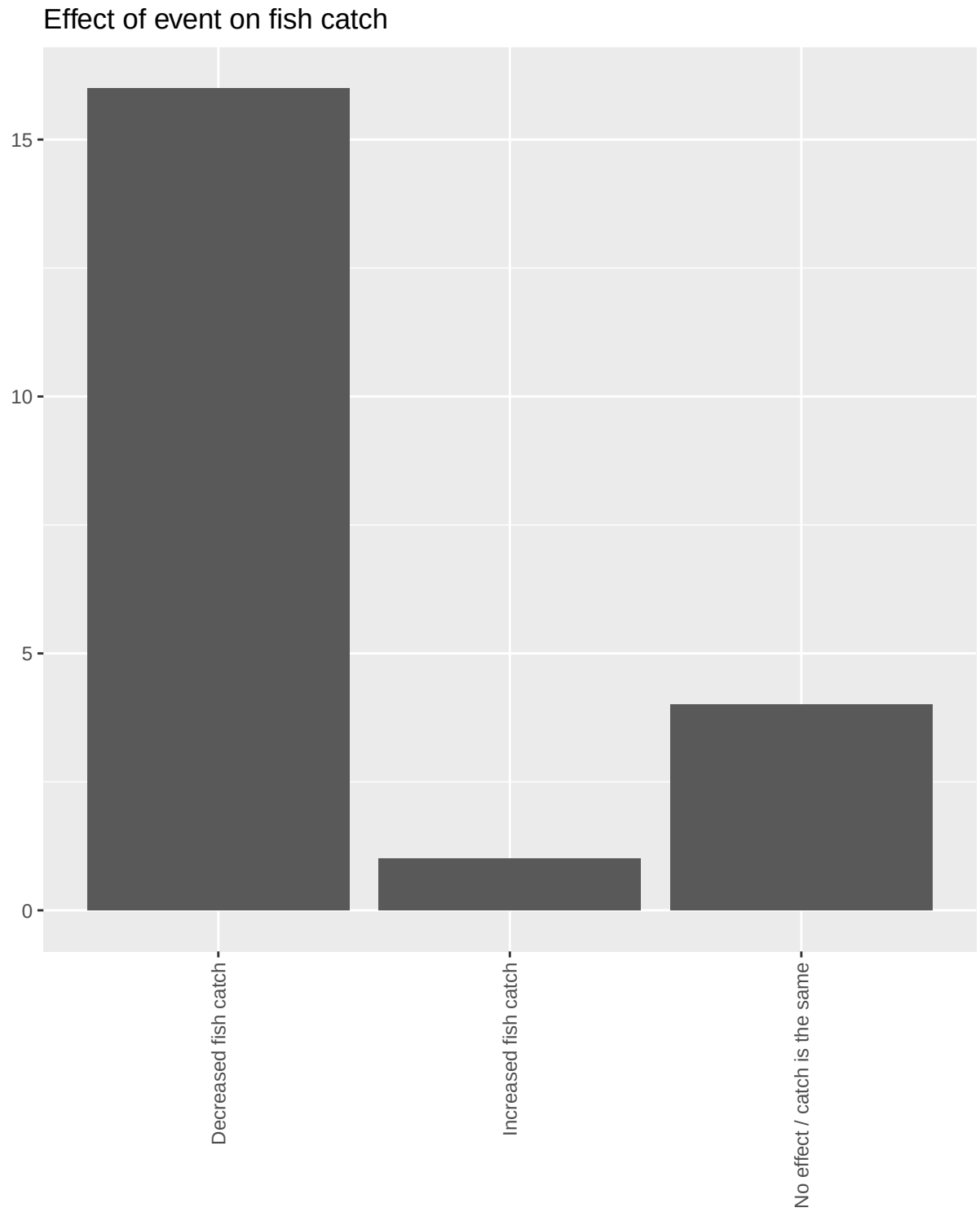

Amount for garbage collection
1.00
0.75
0.50
0.25
0.00
0
20
40
60

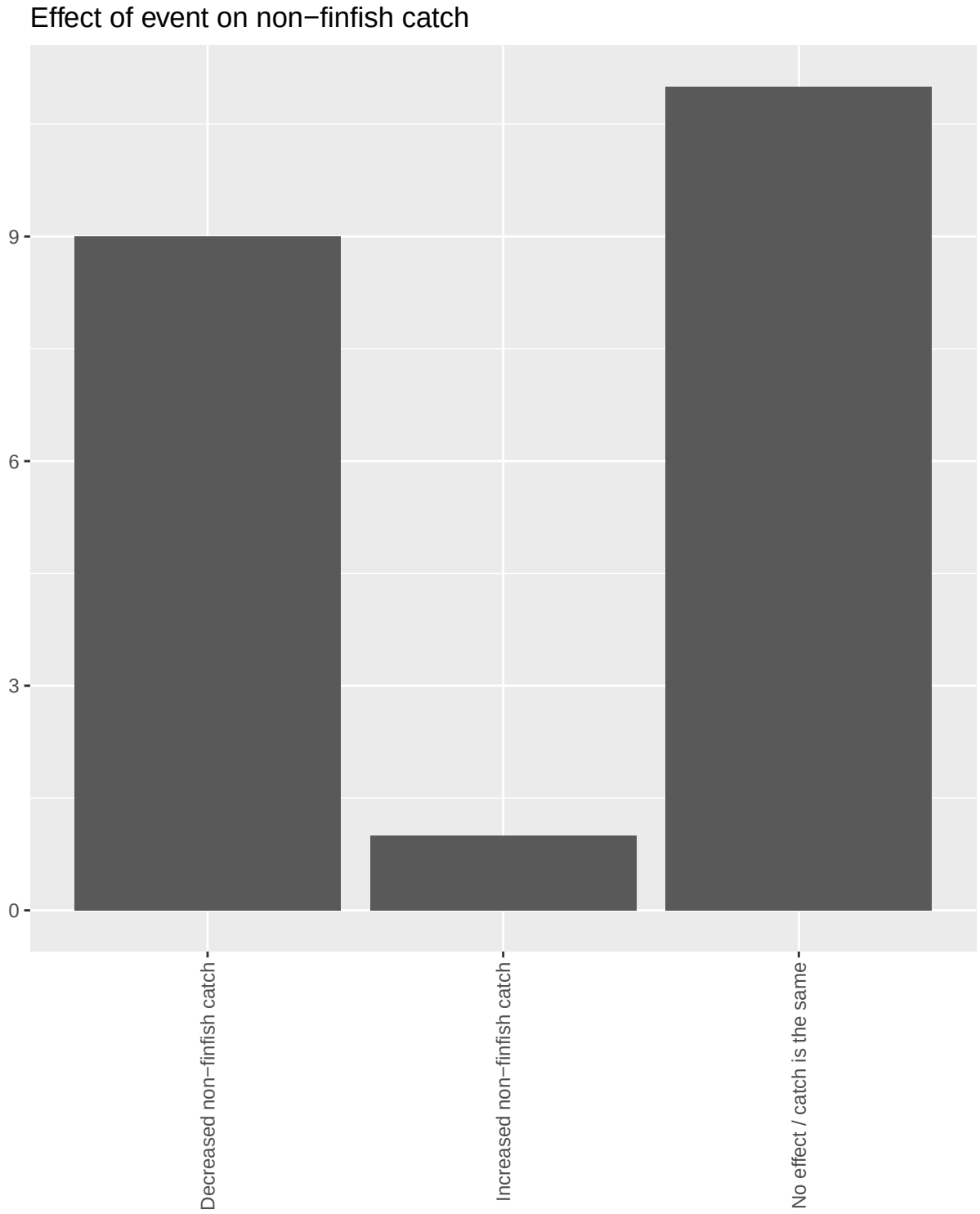
Event Roster Data: List of events

```
## # A tibble: 4 x 1
##   event_roster__id
##   <chr>
## 1 Coral bleaching event
## 2 Cyclone
## 3 Harmful algal bloom
## 4 Tsunami
```

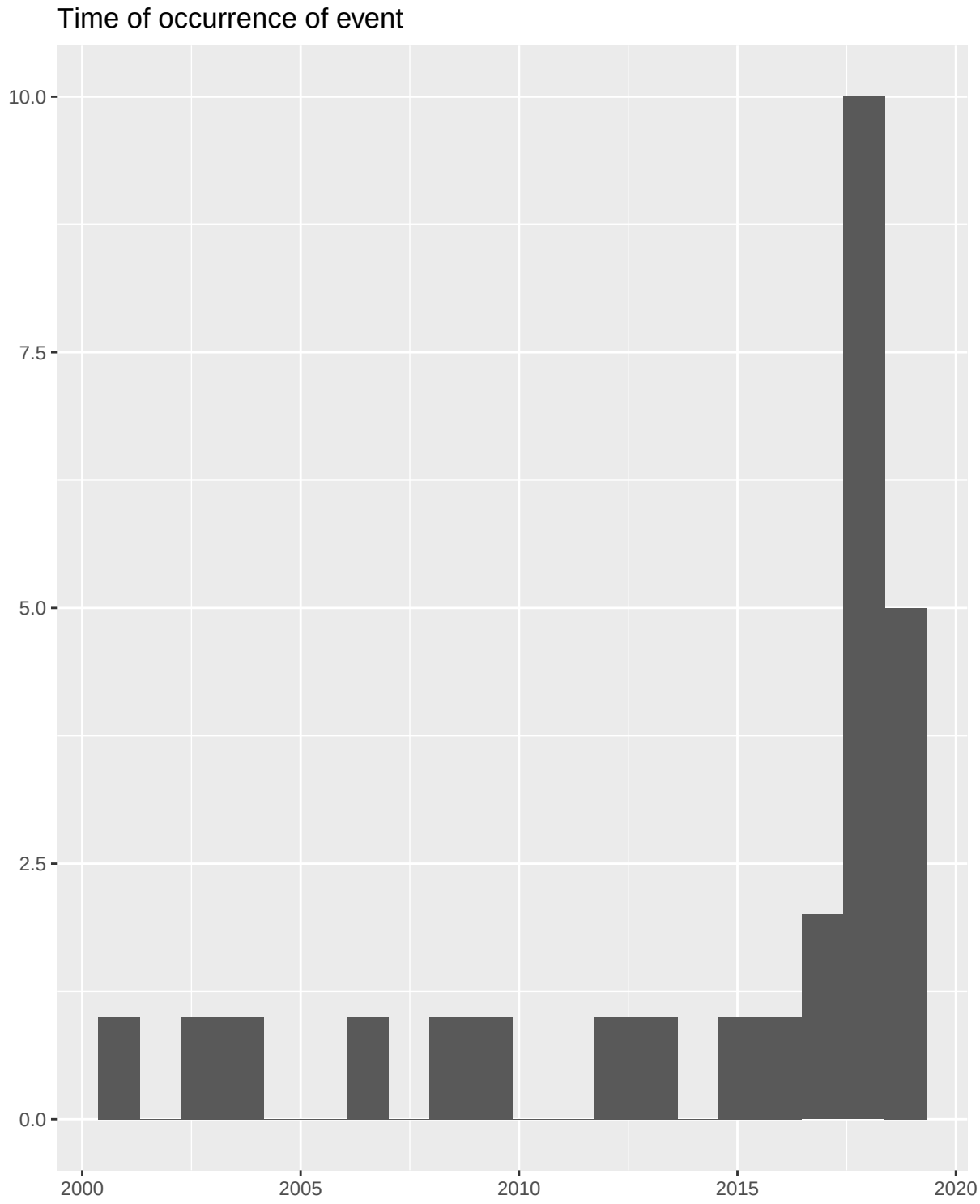
Event: Coral bleaching

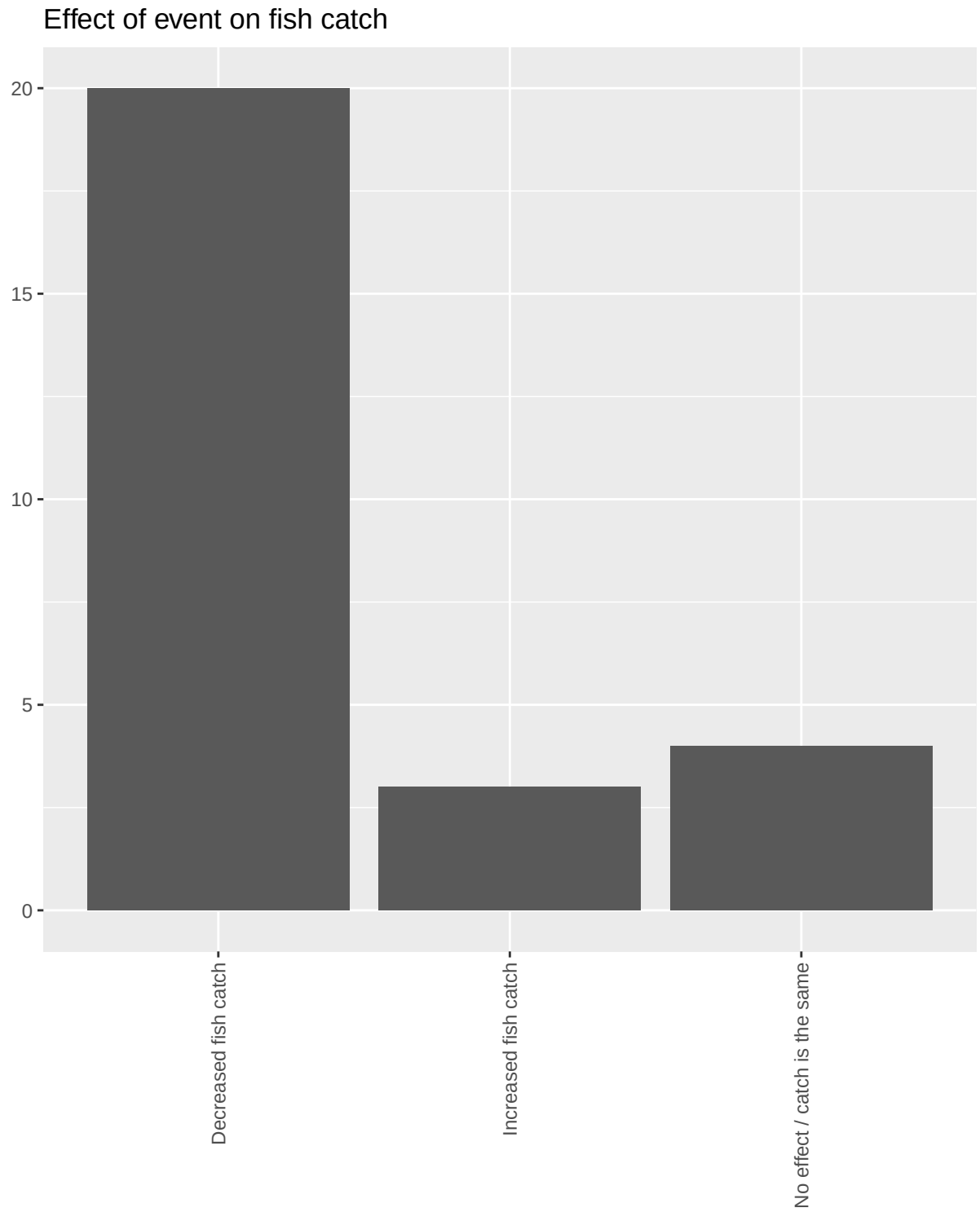


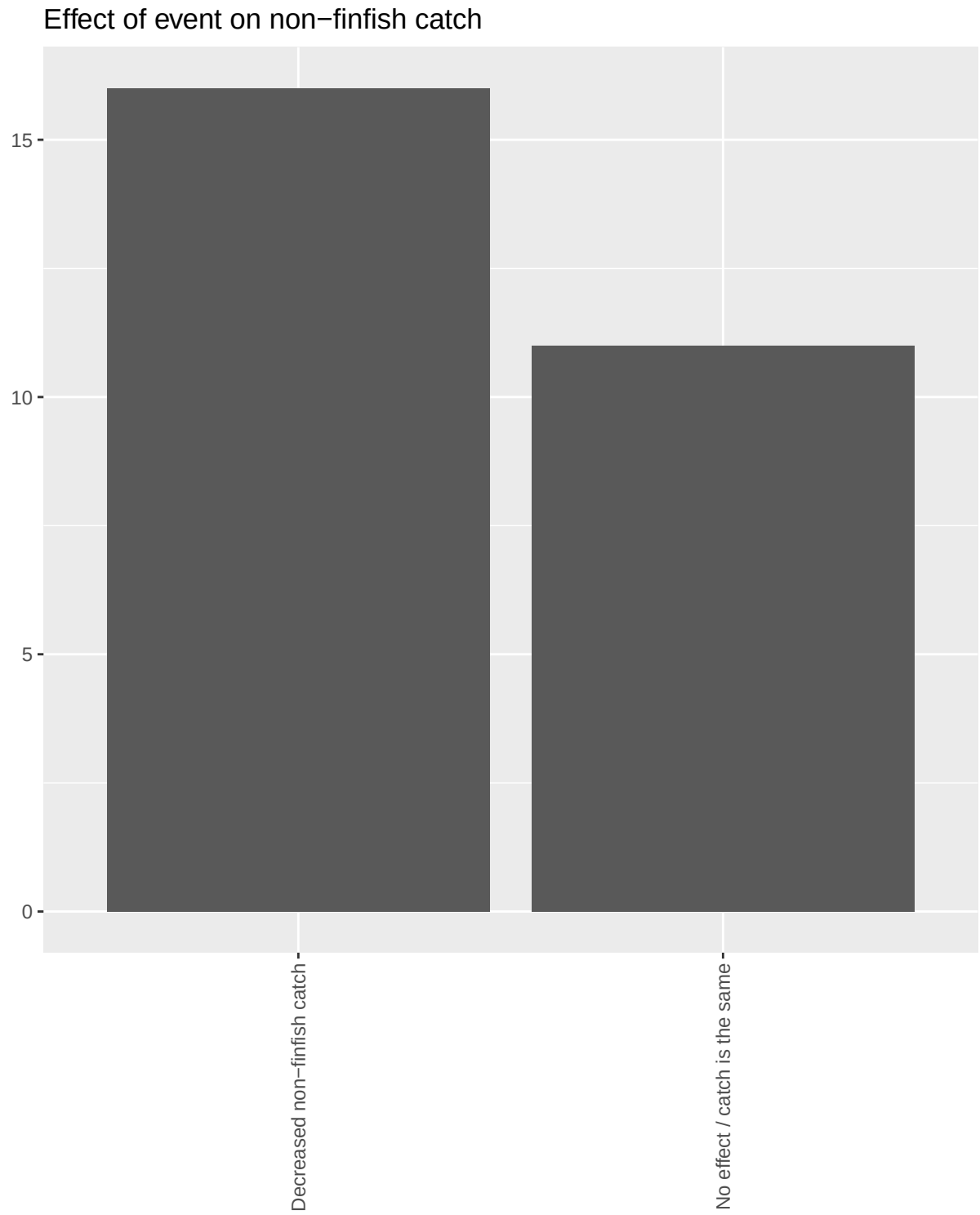

Effect of event on fish catch
15
10
5
0
Decreased fish catch
Increased fish catch
No effect / catch is the same


Effect of event on non−finfish catch
9
6
3
0
Decreased non−finfish catch
Increased non−finfish catch
No effect / catch is the same

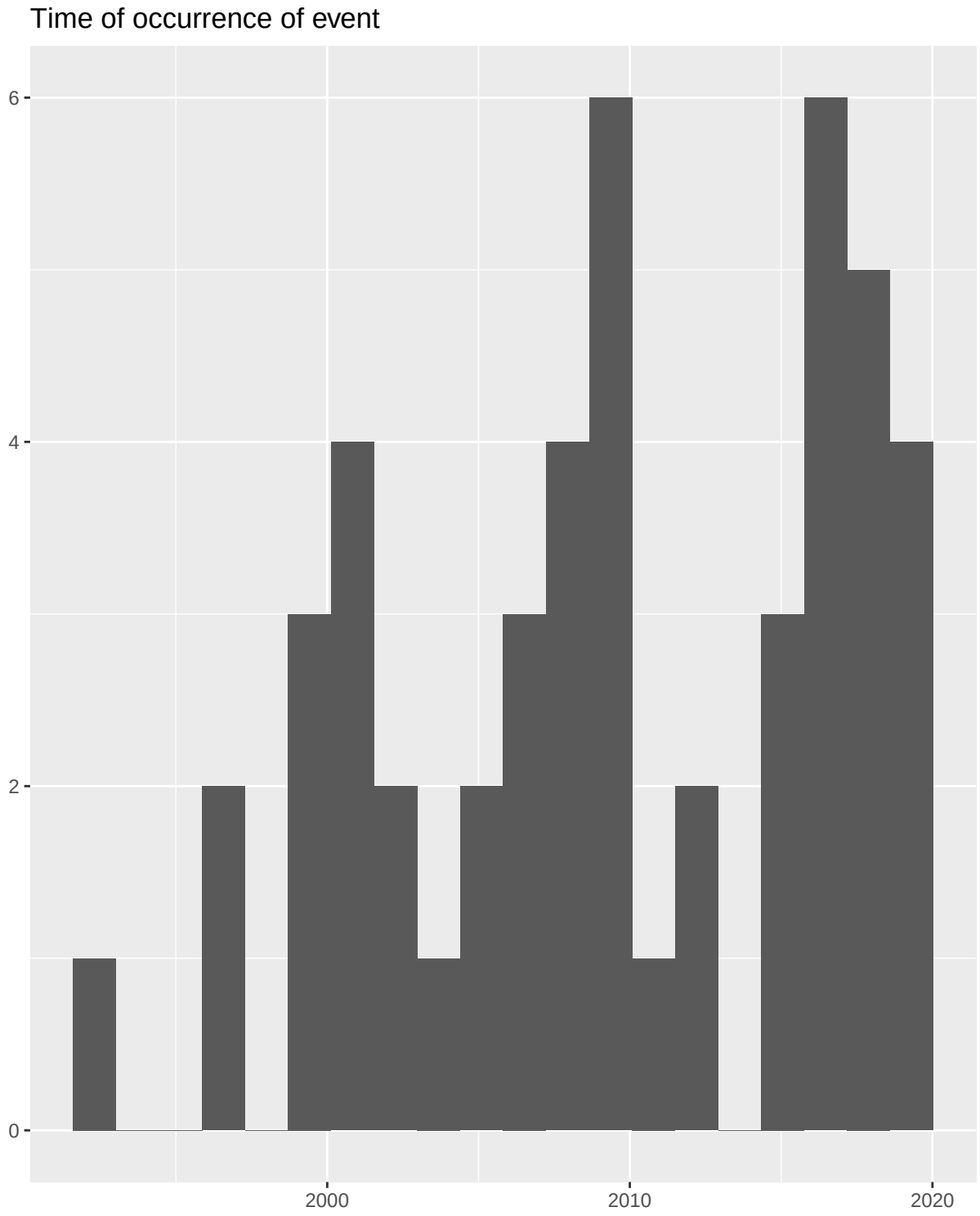
Event: Cyclone

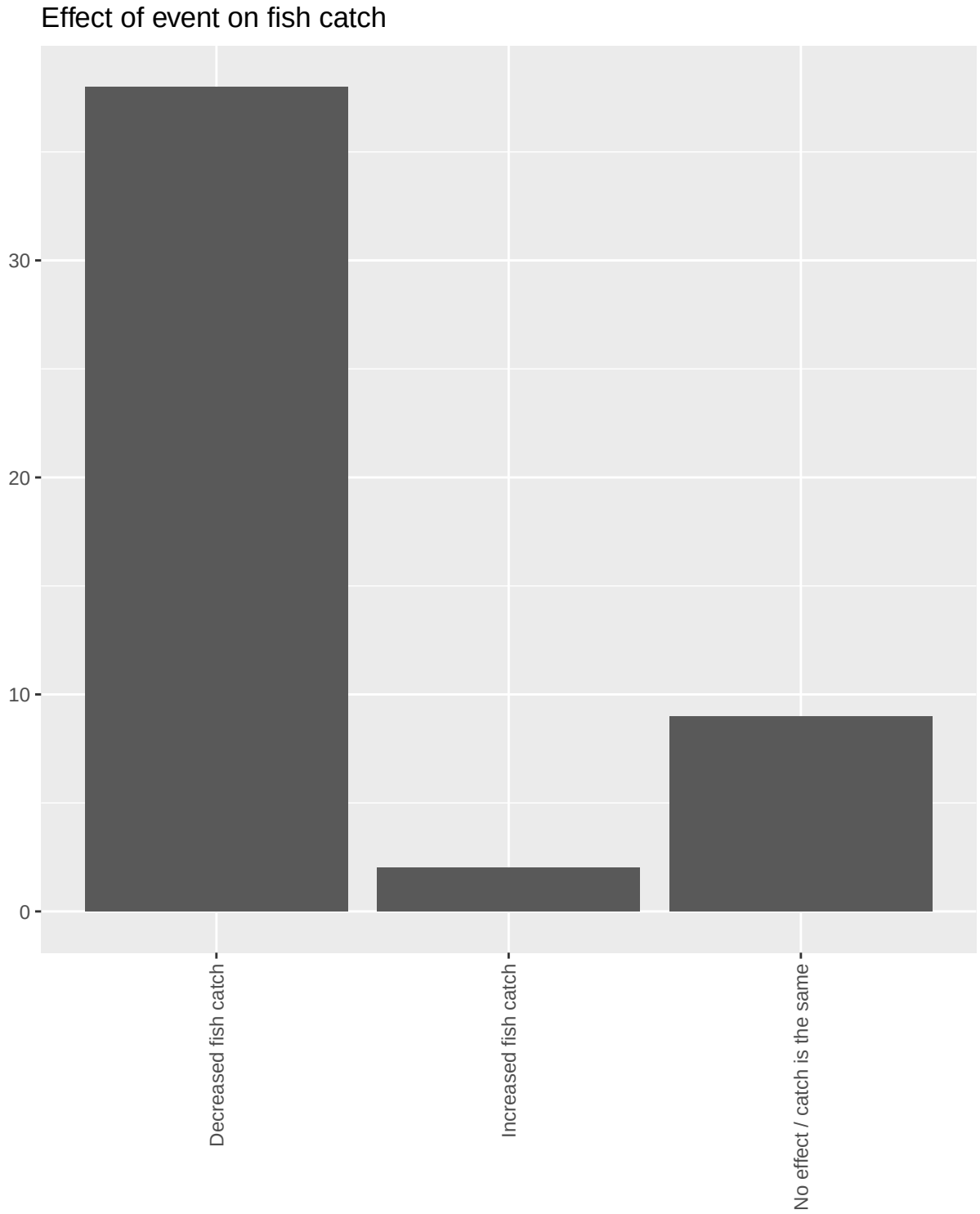


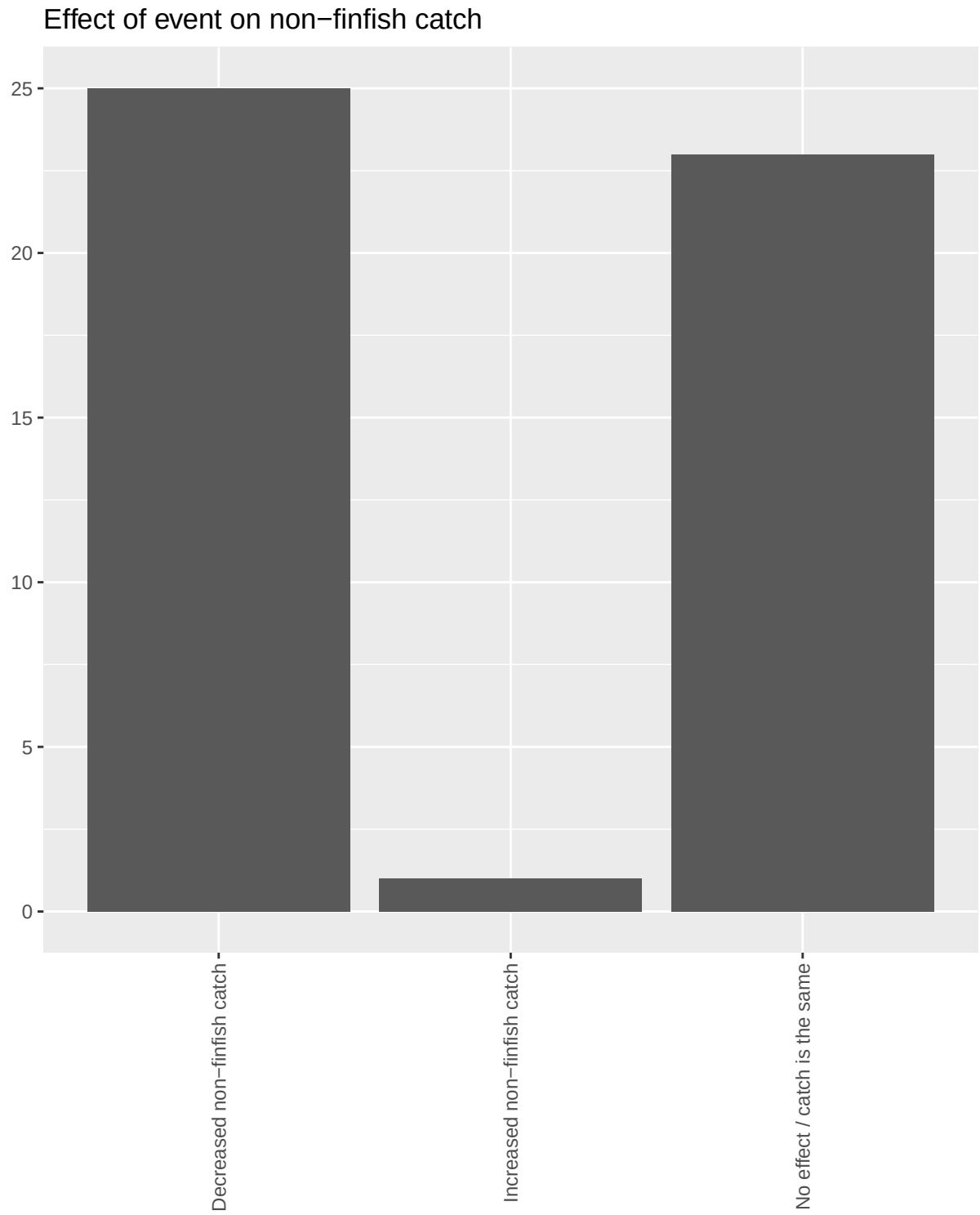

Effect of event on fish catch
20
15
10
5
0
Decreased fish catch
Increased fish catch
No effect / catch is the same


Effect of event on non−finfish catch
15
10
5
0
Decreased non−finfish catch
No effect / catch is the same

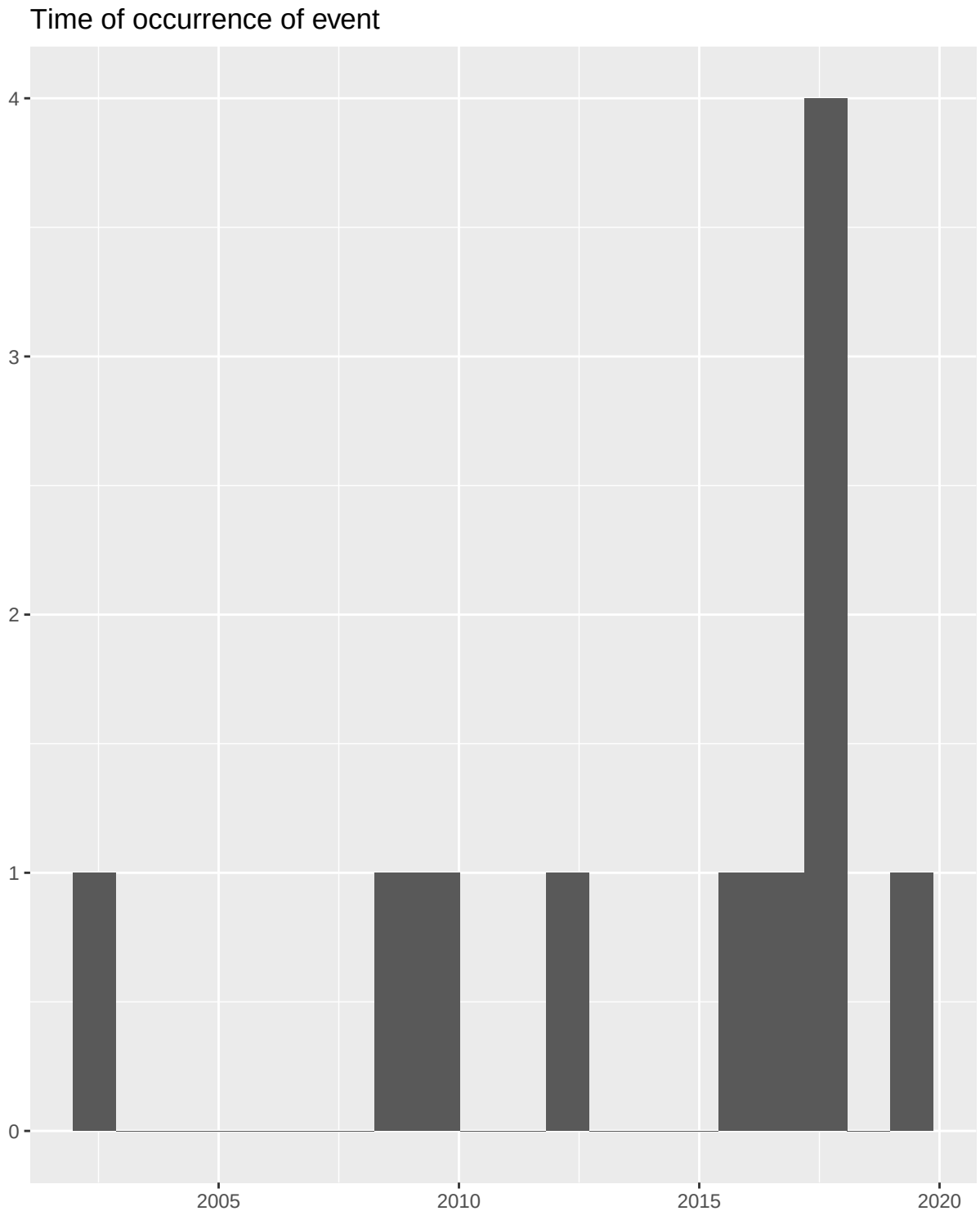
Event: Harmful algal bloom

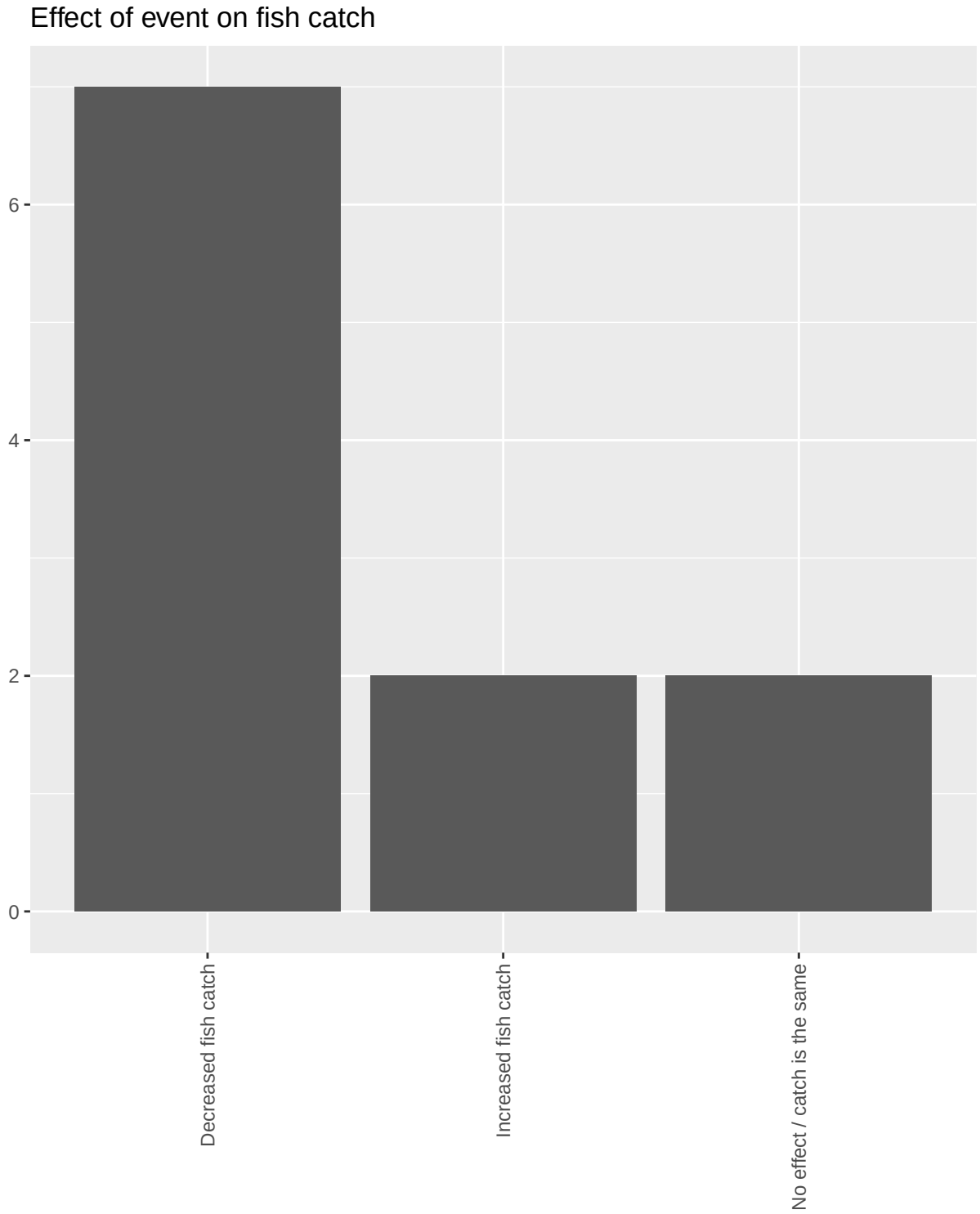


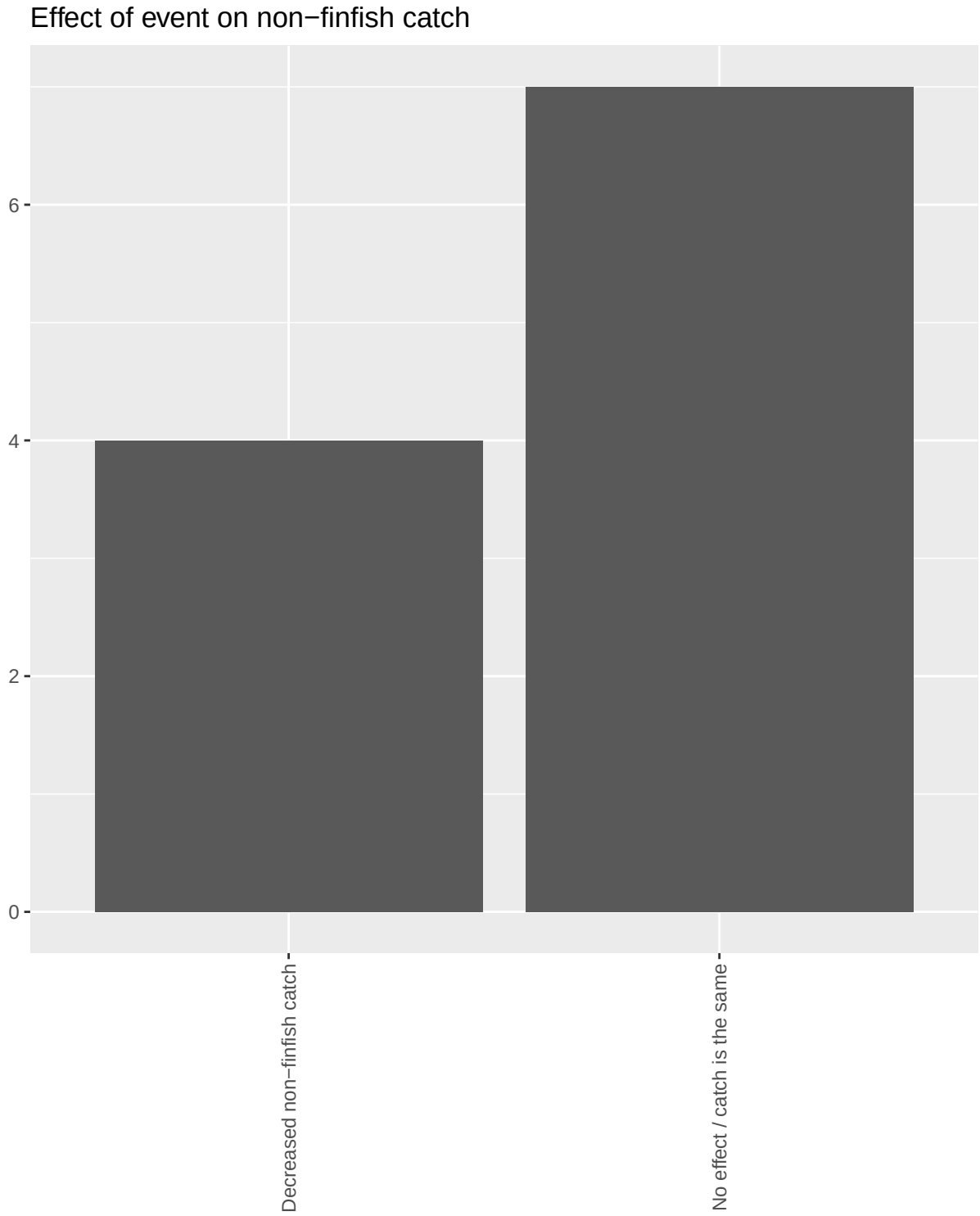

Effect of event on fish catch
30
20
10
0
Decreased fish catch
Increased fish catch
No effect / catch is the same


Effect of event on non−finfish catch
25
20
15
10
5
0
Decreased non−finfish catch
Increased non−finfish catch
No effect / catch is the same

Event: Tsunami



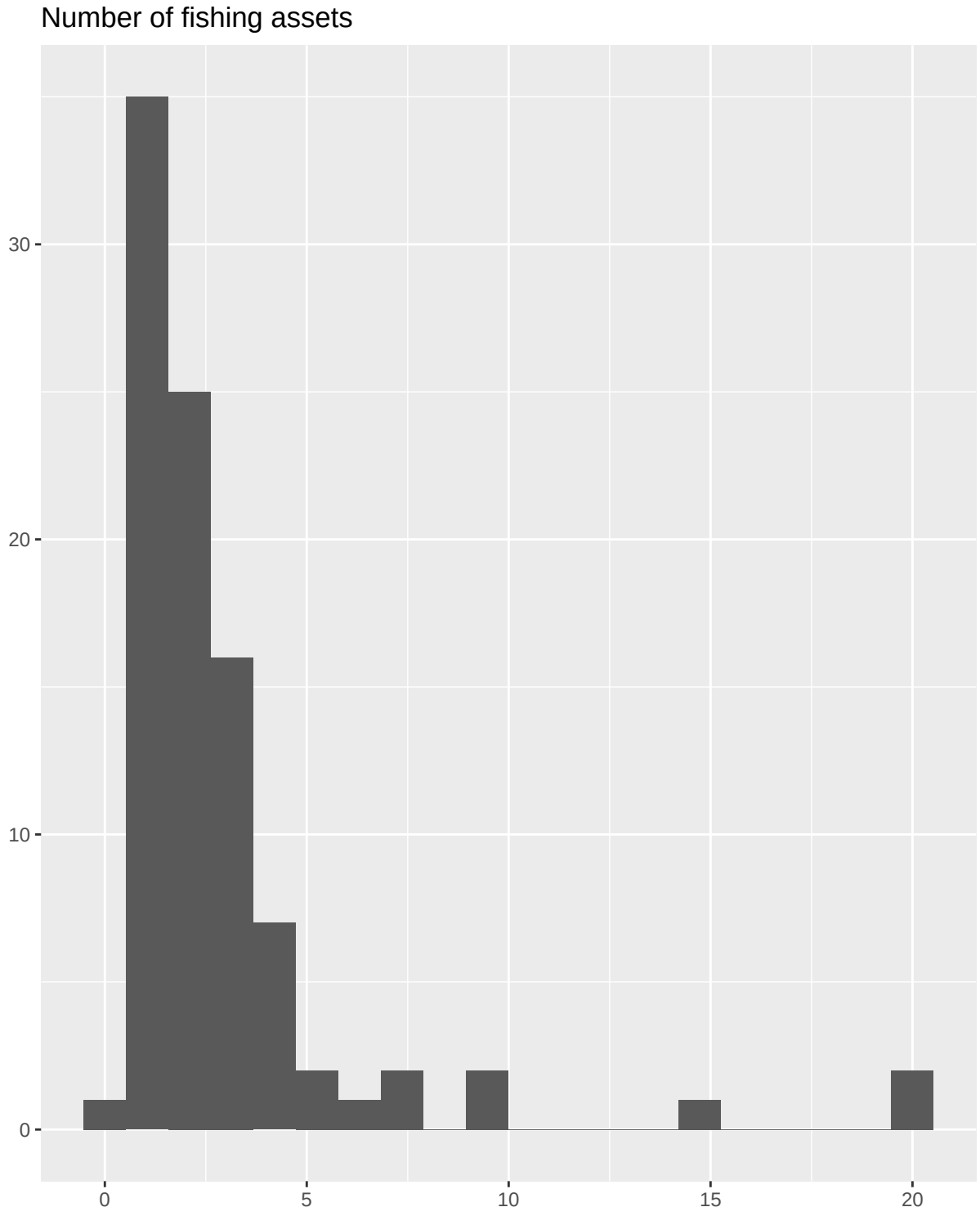

Effect of event on fish catch
6
4
2
0
Decreased fish catch
Increased fish catch
No effect / catch is the same

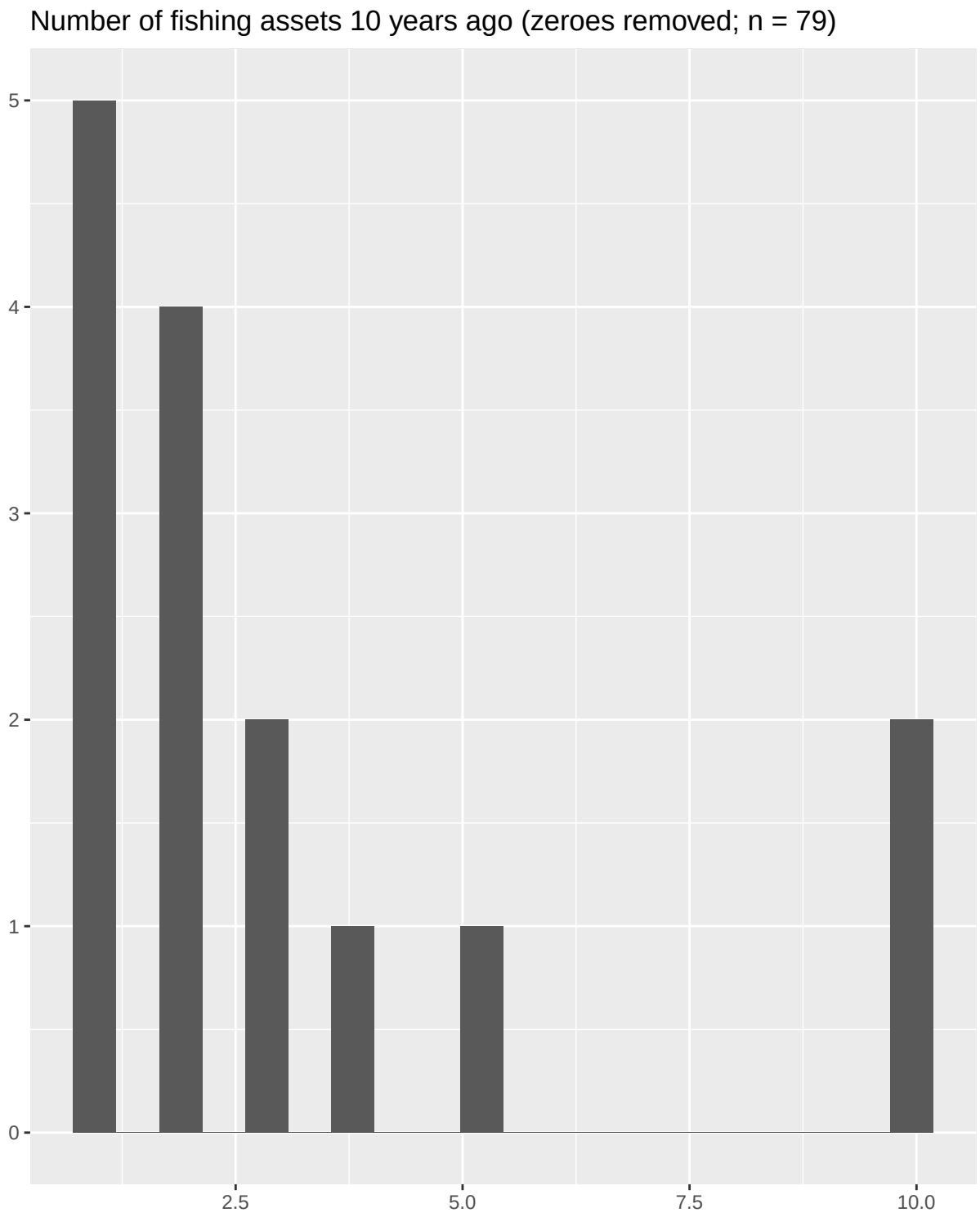

Effect of event on non−finfish catch
6
4
2
0
Decreased non−finfish catch
No effect / catch is the same

Fish Roster Data: List of fish assets

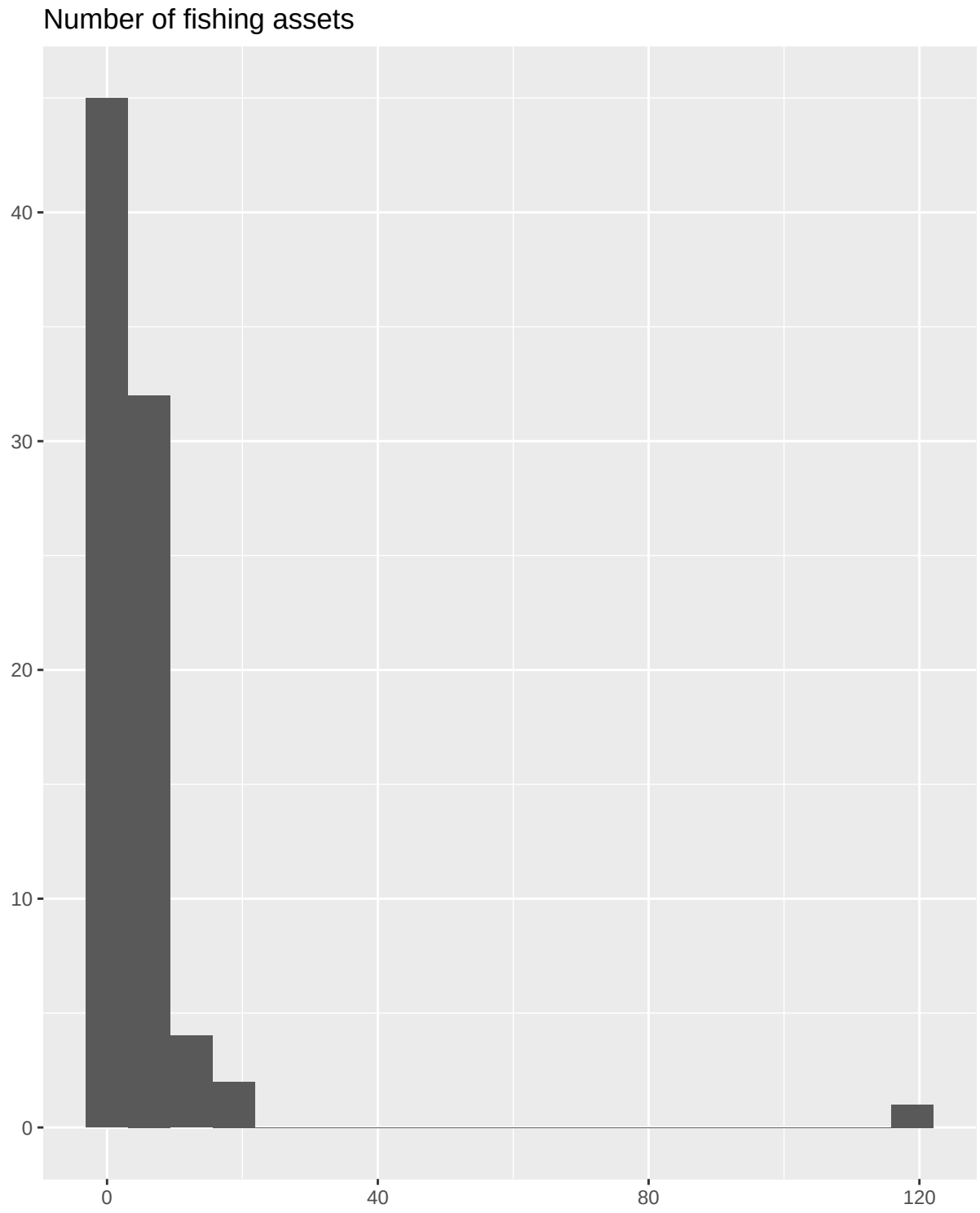
```
## # A tibble: 17 x 1
##    fish_asset_roster__id
##    <chr>
##  1 Fibreglass boats
##  2 Outboard Motors
##  3 Fishing Nets (gillnet)
##  4 Spearguns
##  5 Fishing Lines
##  6 Active Fish Traps
##  7 Underwater flashlights
##  8 Wood canoes
##  9 Eskies/portable coolers
## 10 SCUBA diving equipment
## 11 Freezers (electric or propane)
## 12 Ice machines
## 13 Fishing Nets (purse)
## 14 Drag Nets
## 15 Harpoons/Spears
## 16 Other Fishing Equipment (note)
## 17 FAD (Fish Aggregating Device)
```

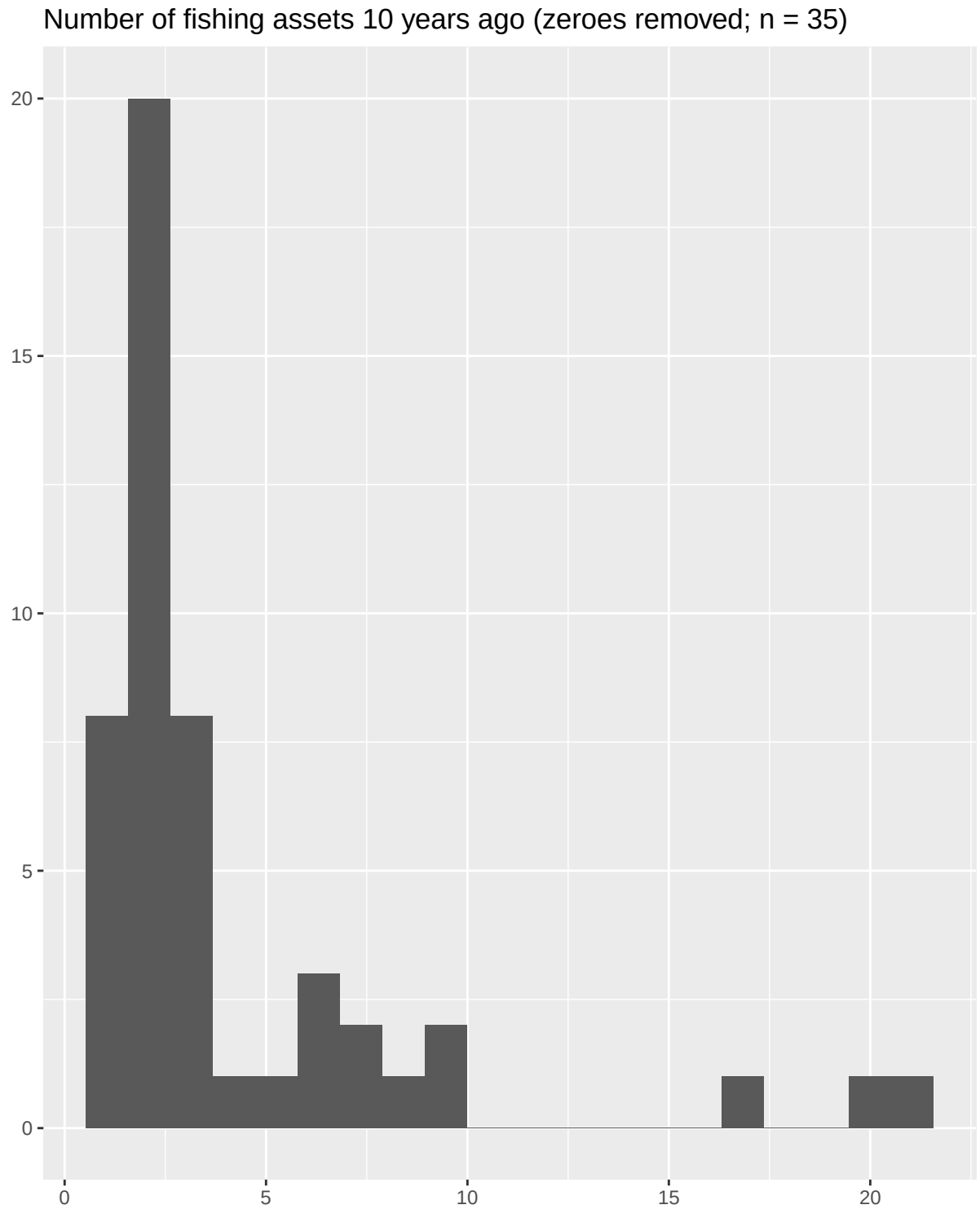
Asset: Fibreglass boats



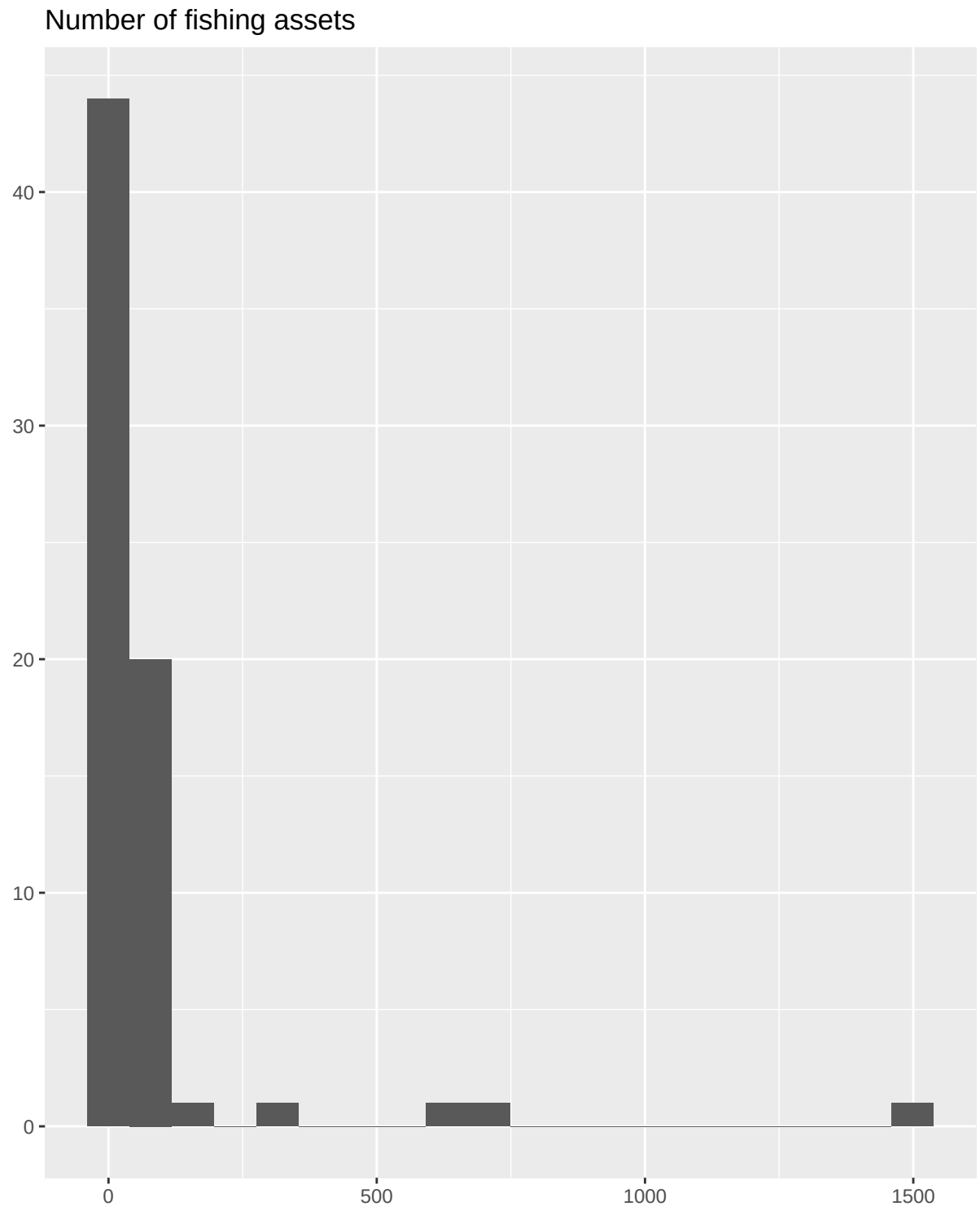

Number of fishing assets 10 years ago (zeroes removed; n = 79)
5
4
3
2
1
0
2.5
5.0
7.5
10.0

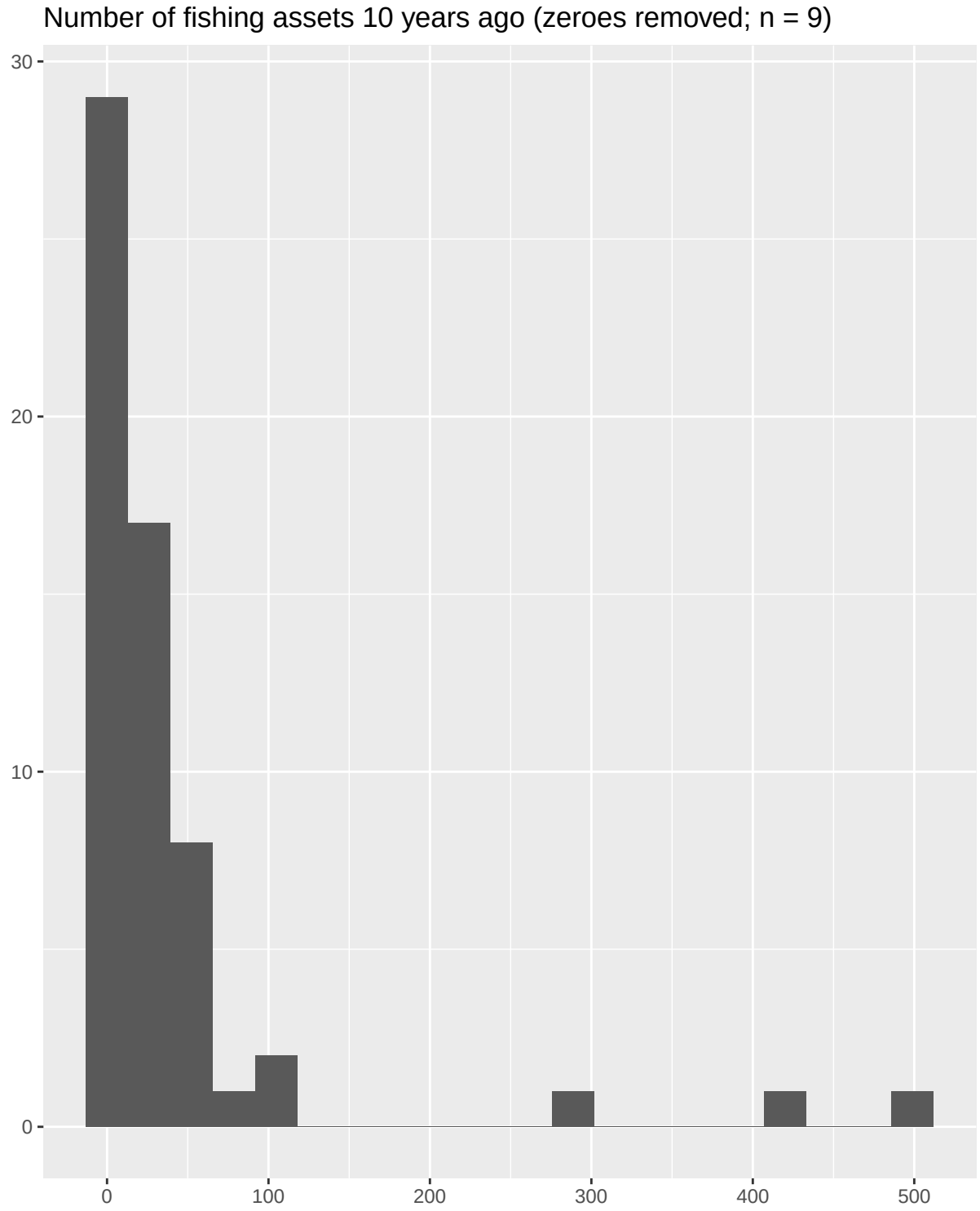
Asset: Outboard Motors



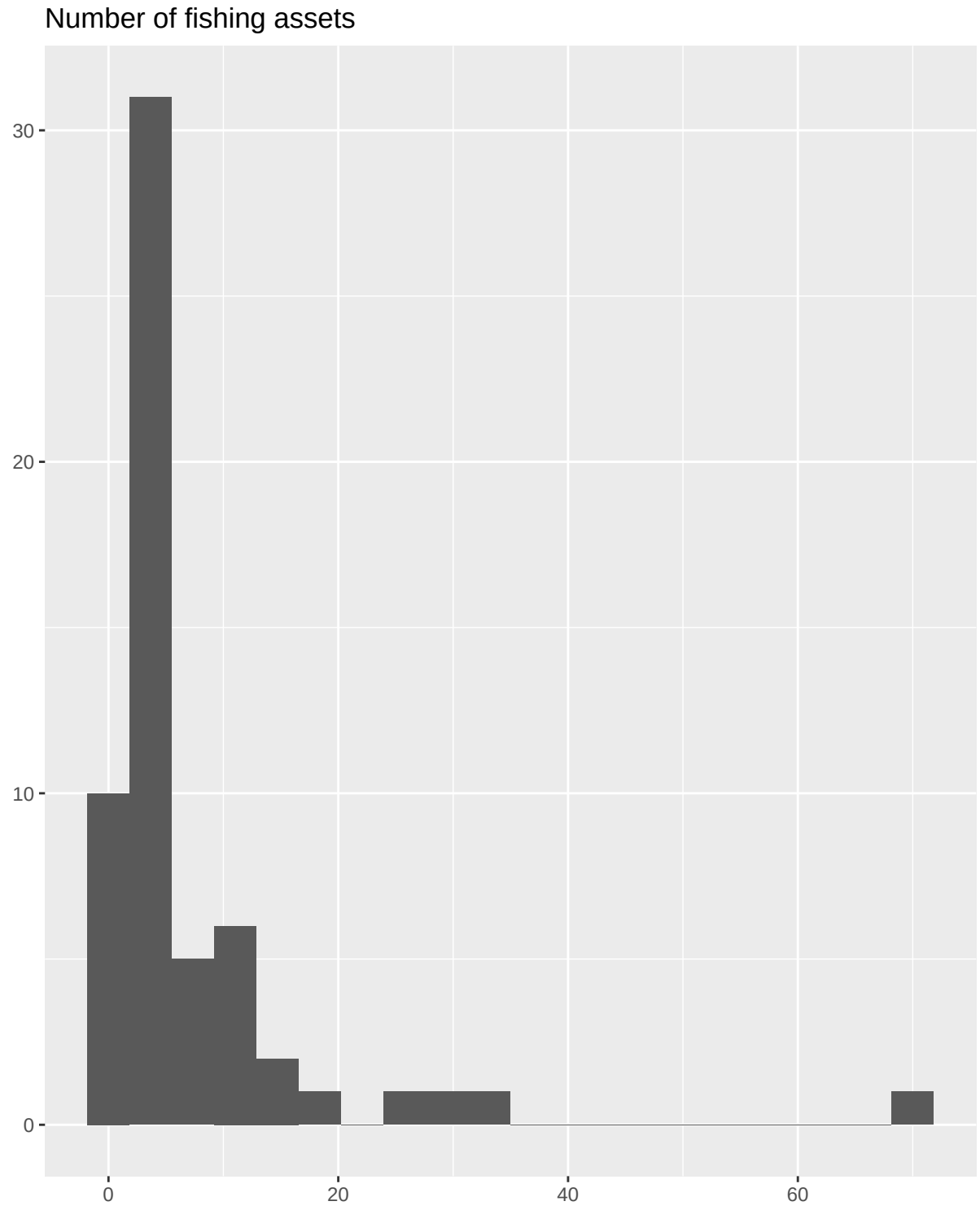

Number of fishing assets 10 years ago (zeroes removed; n = 35)
20
15
10
5
0
0
5
10
15
20

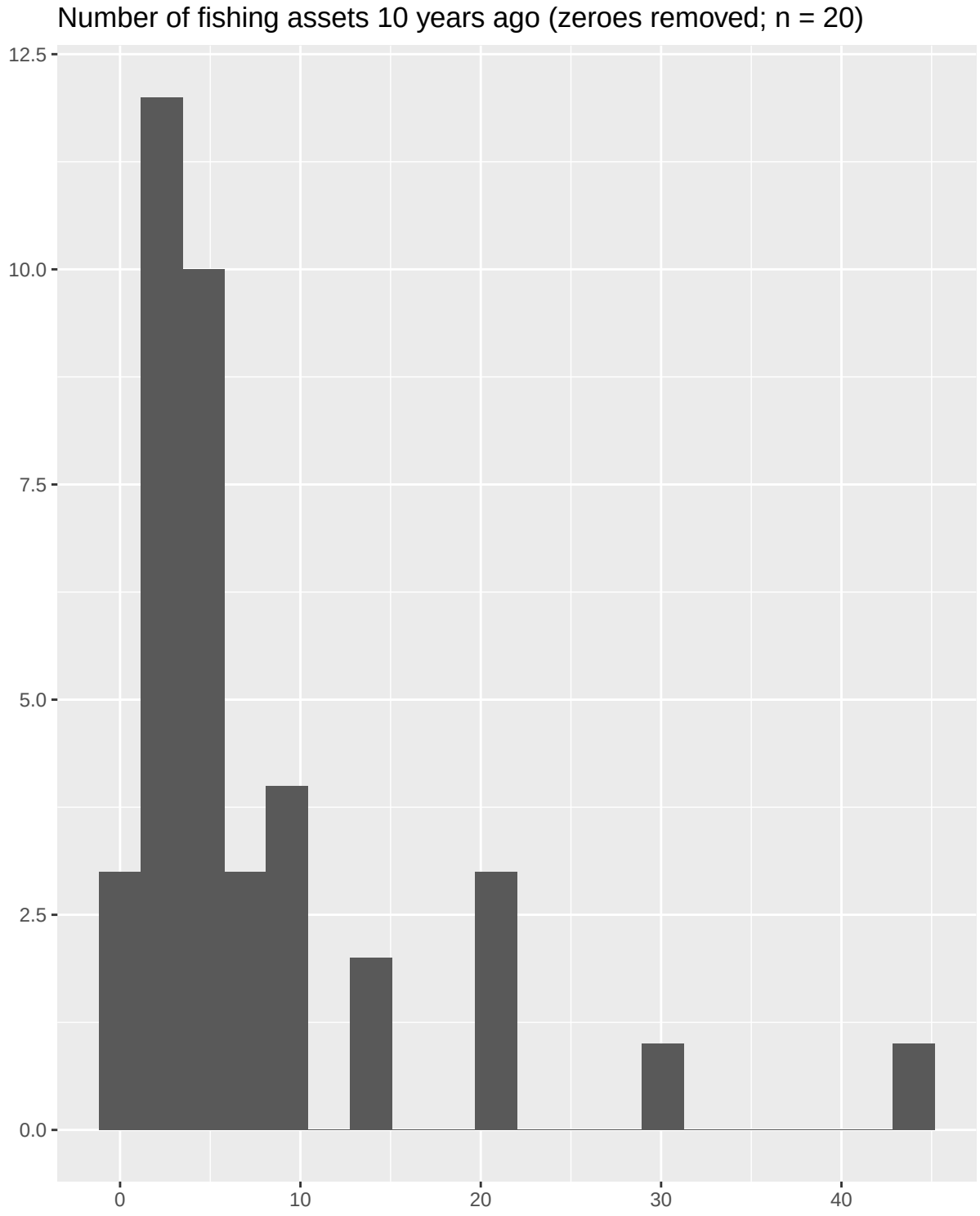
Asset: Fishing Nets (gillnet)



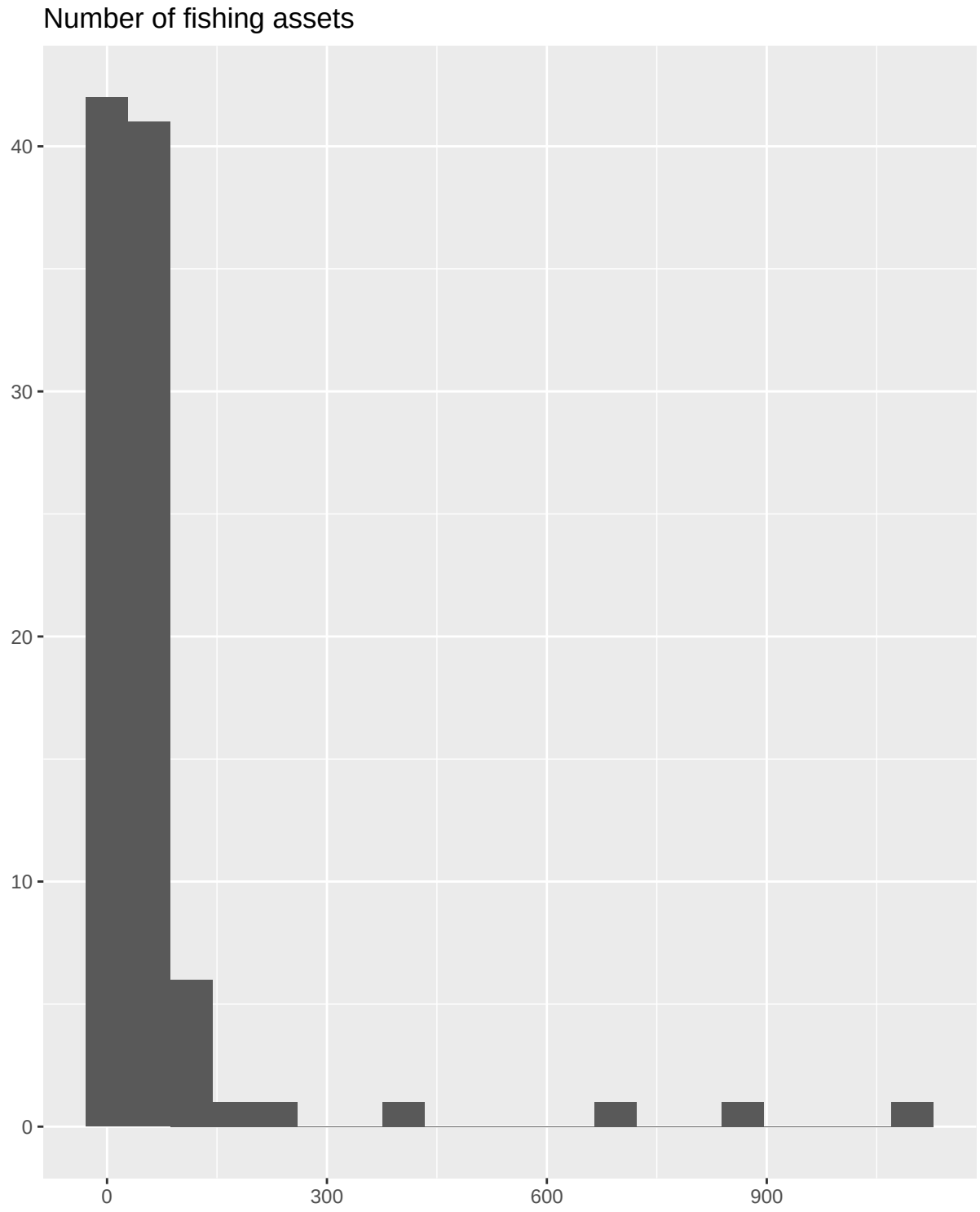

Number of fishing assets 10 years ago (zeroes removed; n = 9)
30
20
10
0
0
100
200
300
400
500

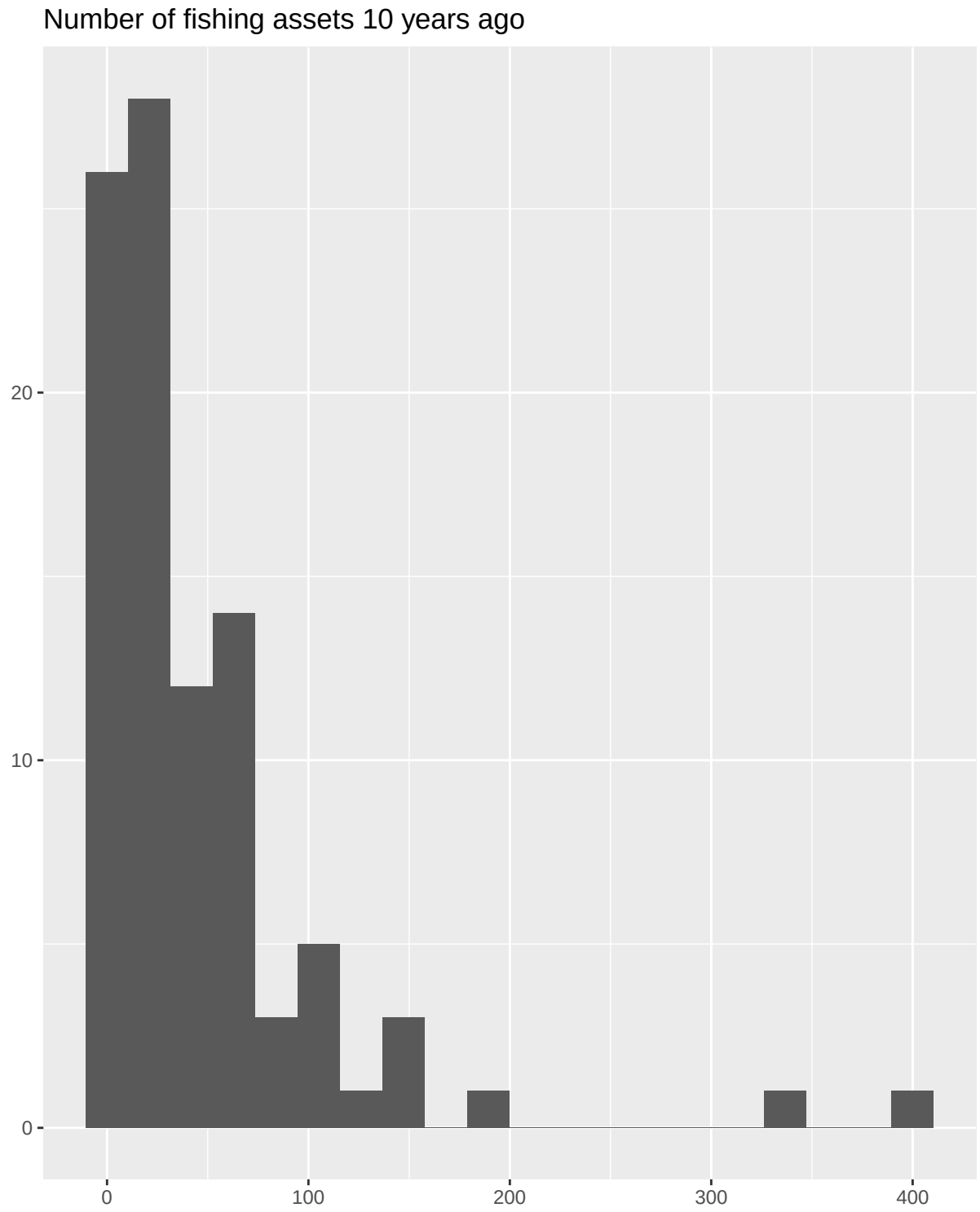
Asset: Spearguns



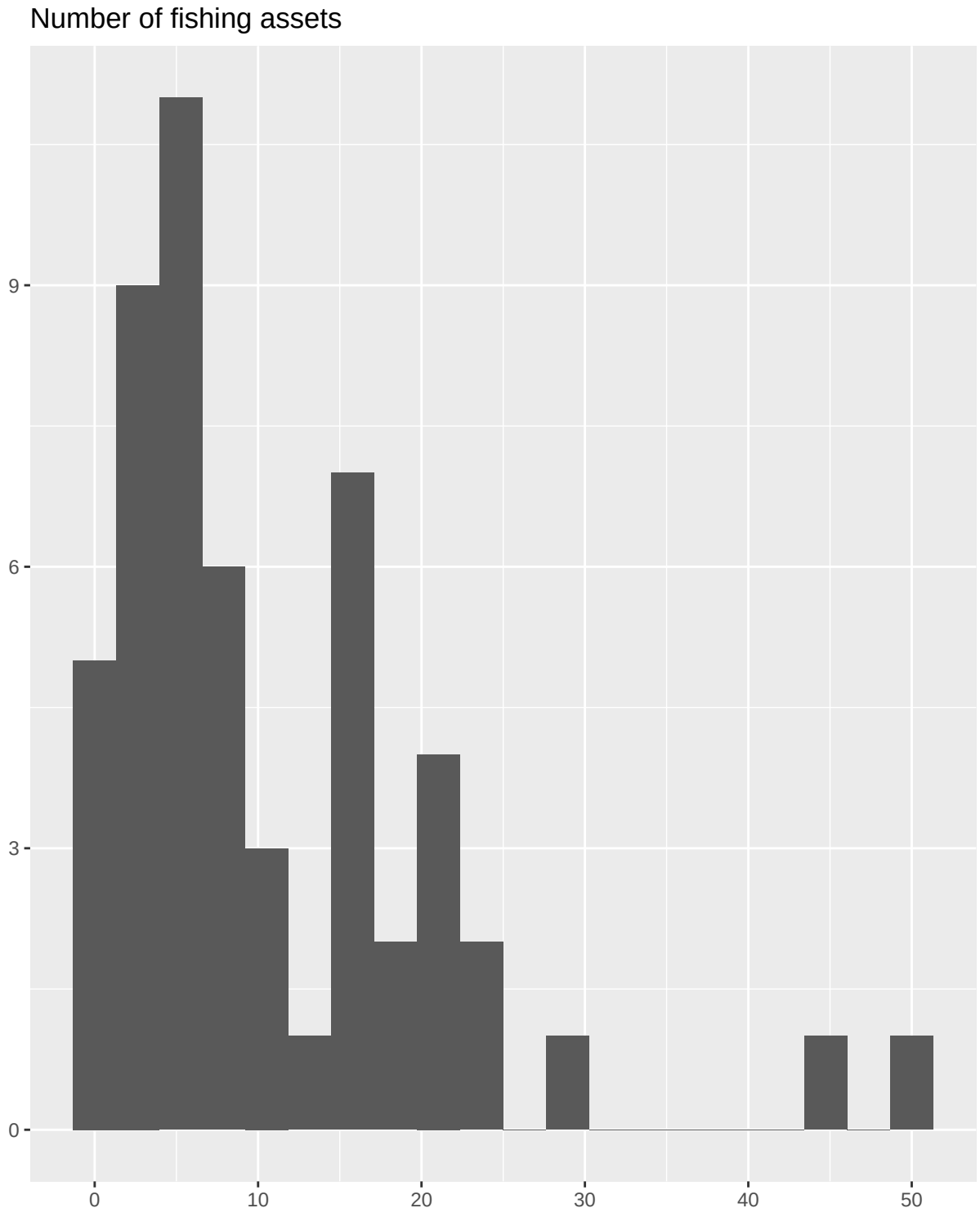

Number of fishing assets 10 years ago (zeroes removed; n = 20)
12.5
10.0
7.5
5.0
2.5
0.0
0
10
20
30
40

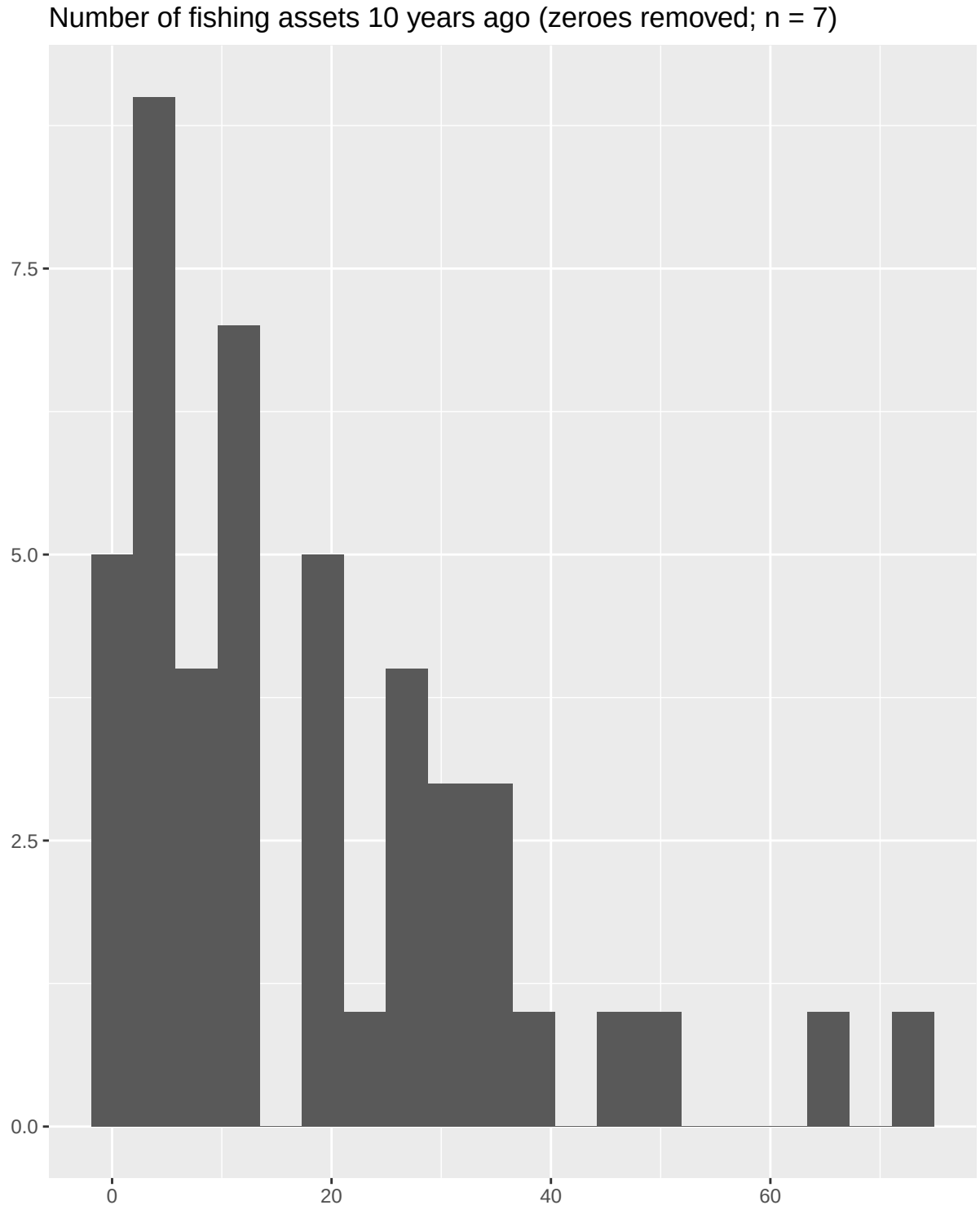
Asset: Fishing Lines



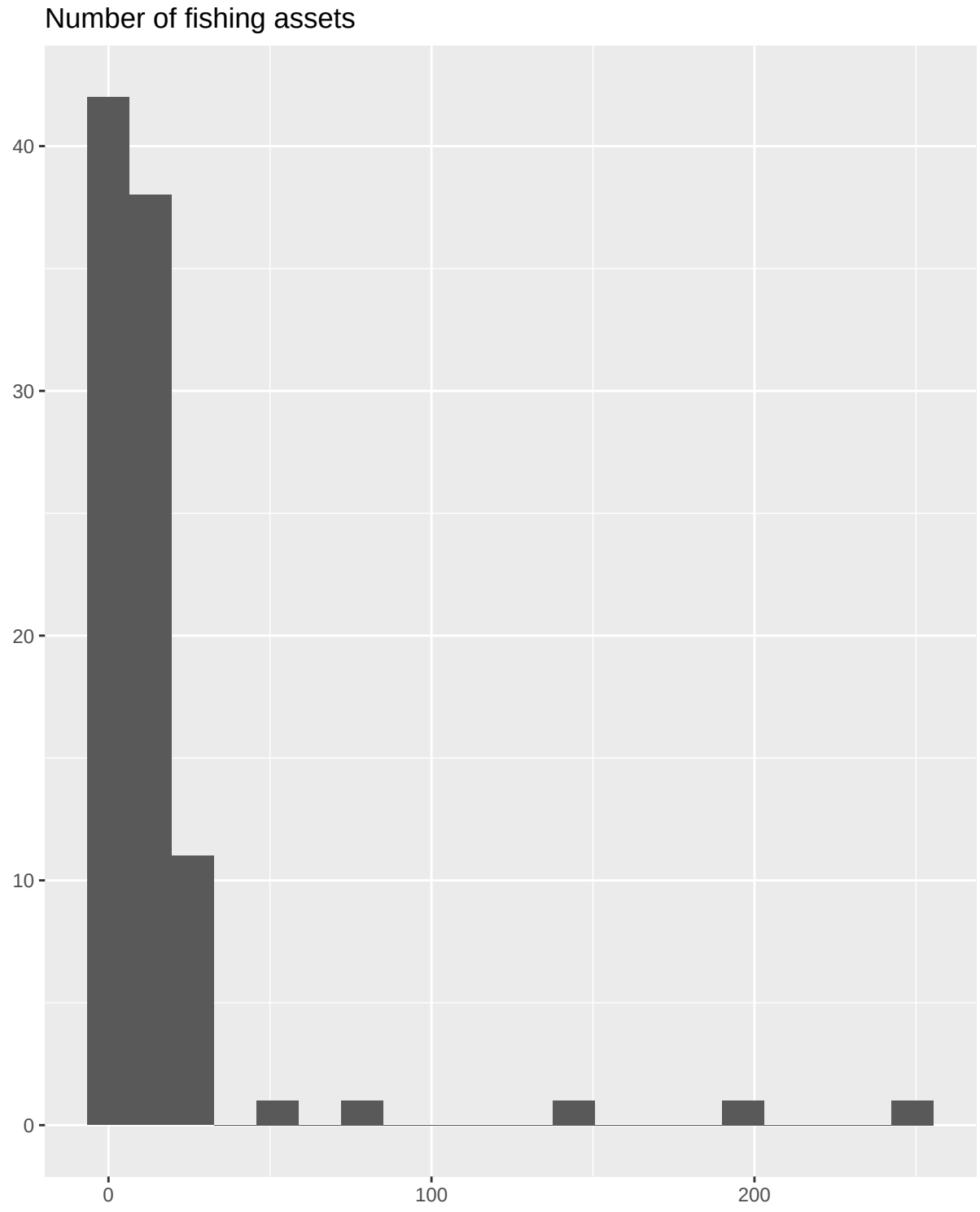

Number of fishing assets 10 years ago
20
10
0
0
100
200
300
400

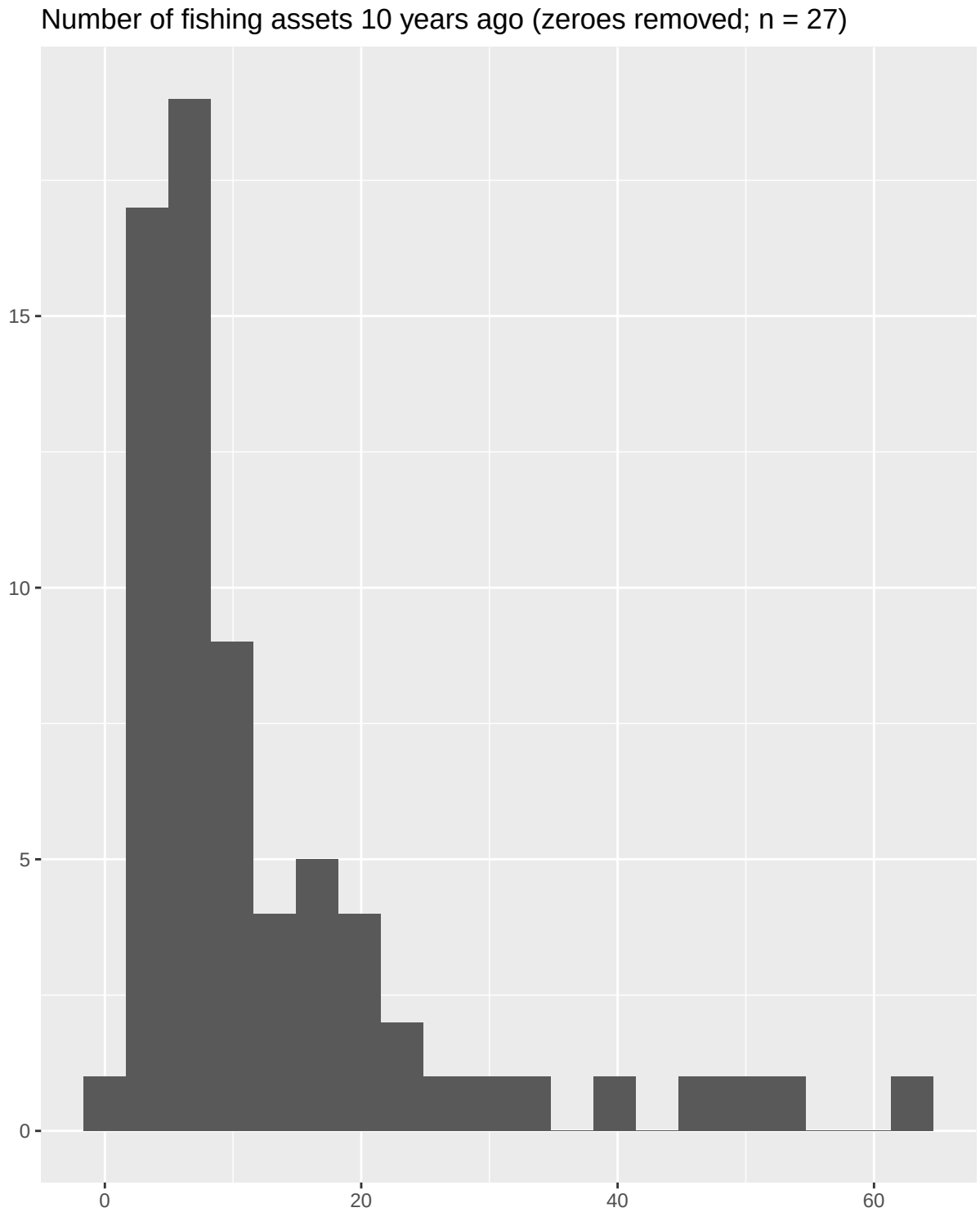
Asset: Active Fish Traps



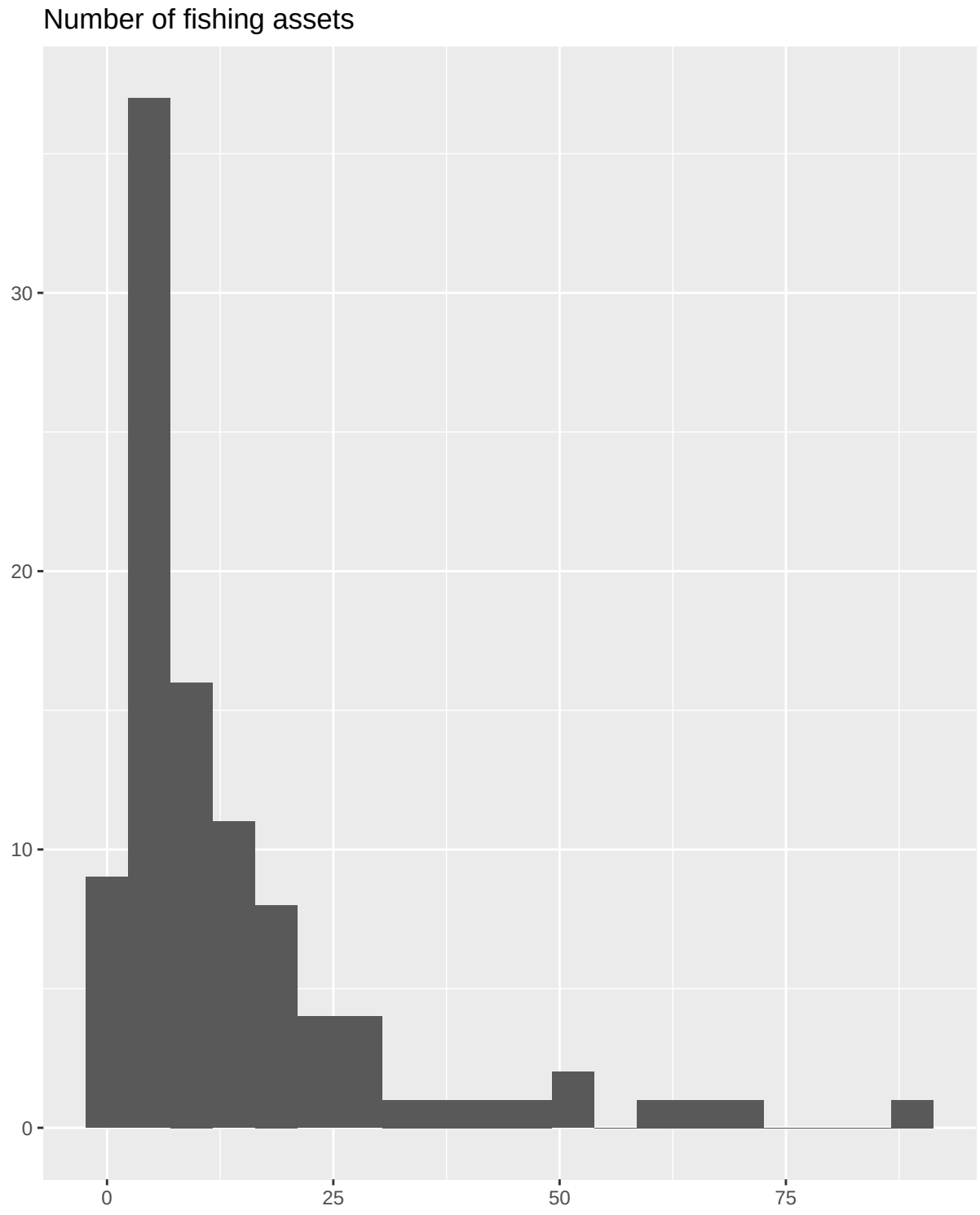

Number of fishing assets 10 years ago (zeroes removed; n = 7)
7.5
5.0
2.5
0.0
0
20
40
60

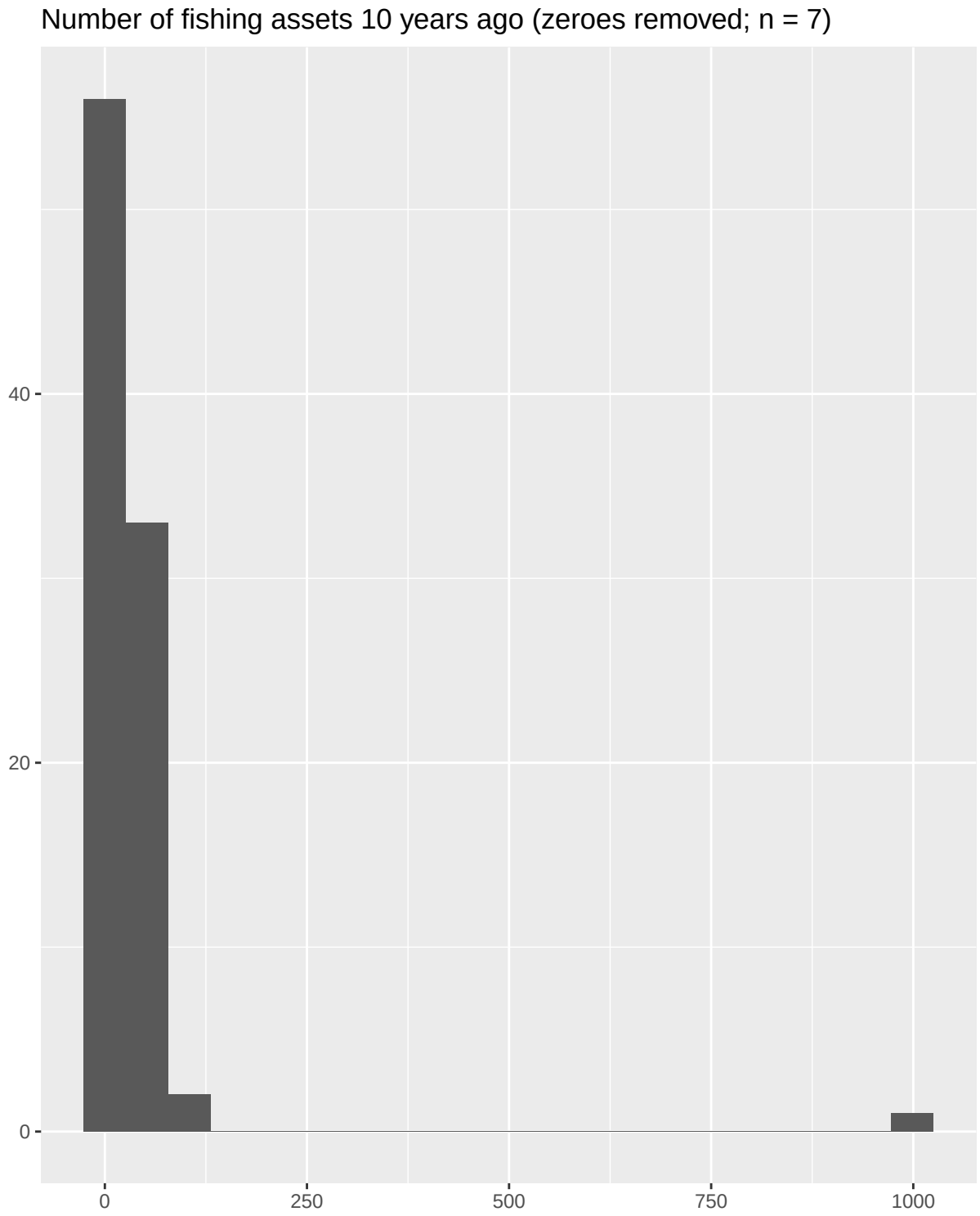
Asset: Underwater flashlights



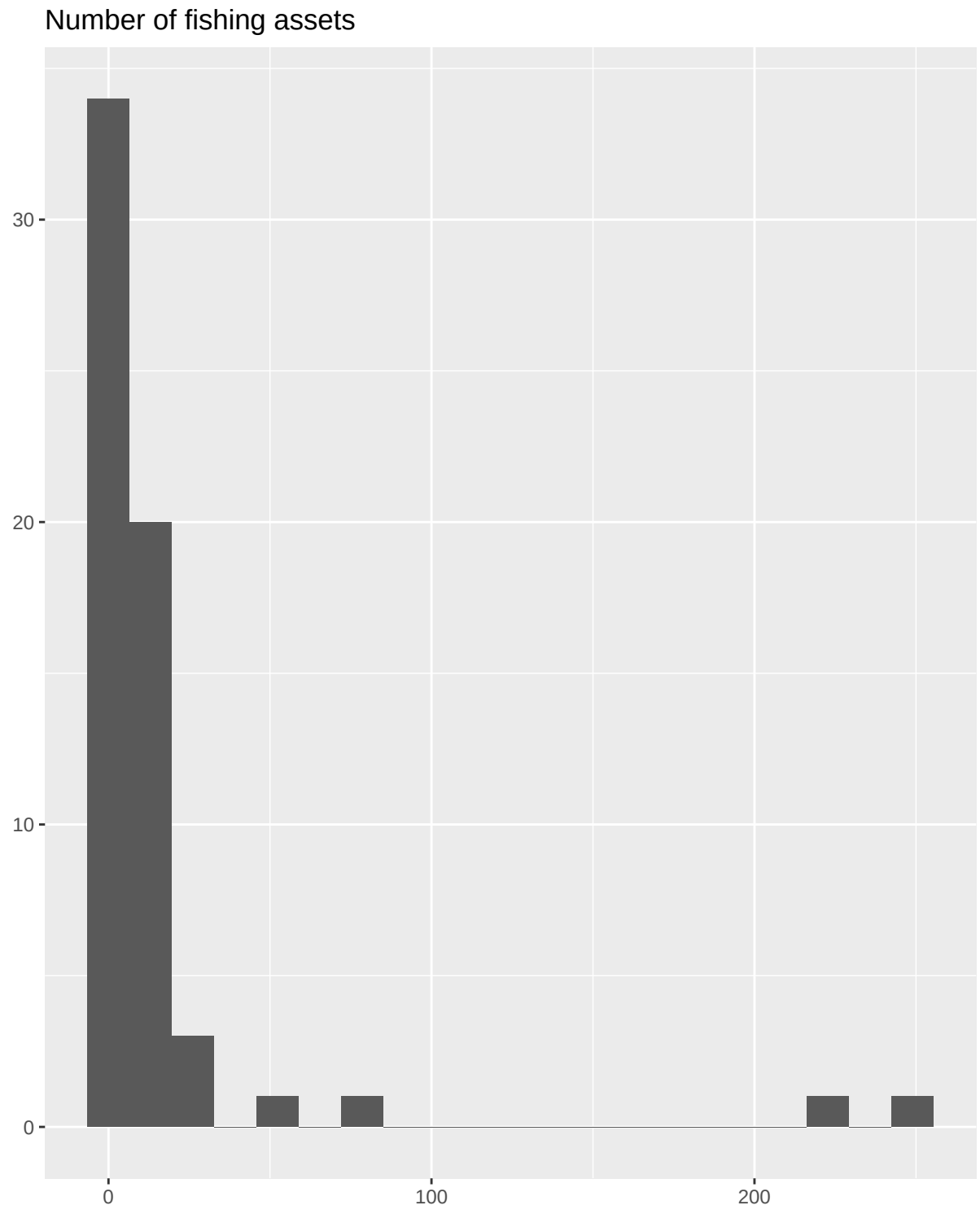

Number of fishing assets 10 years ago (zeroes removed; n = 27)
15
10
5
0
0
20
40
60

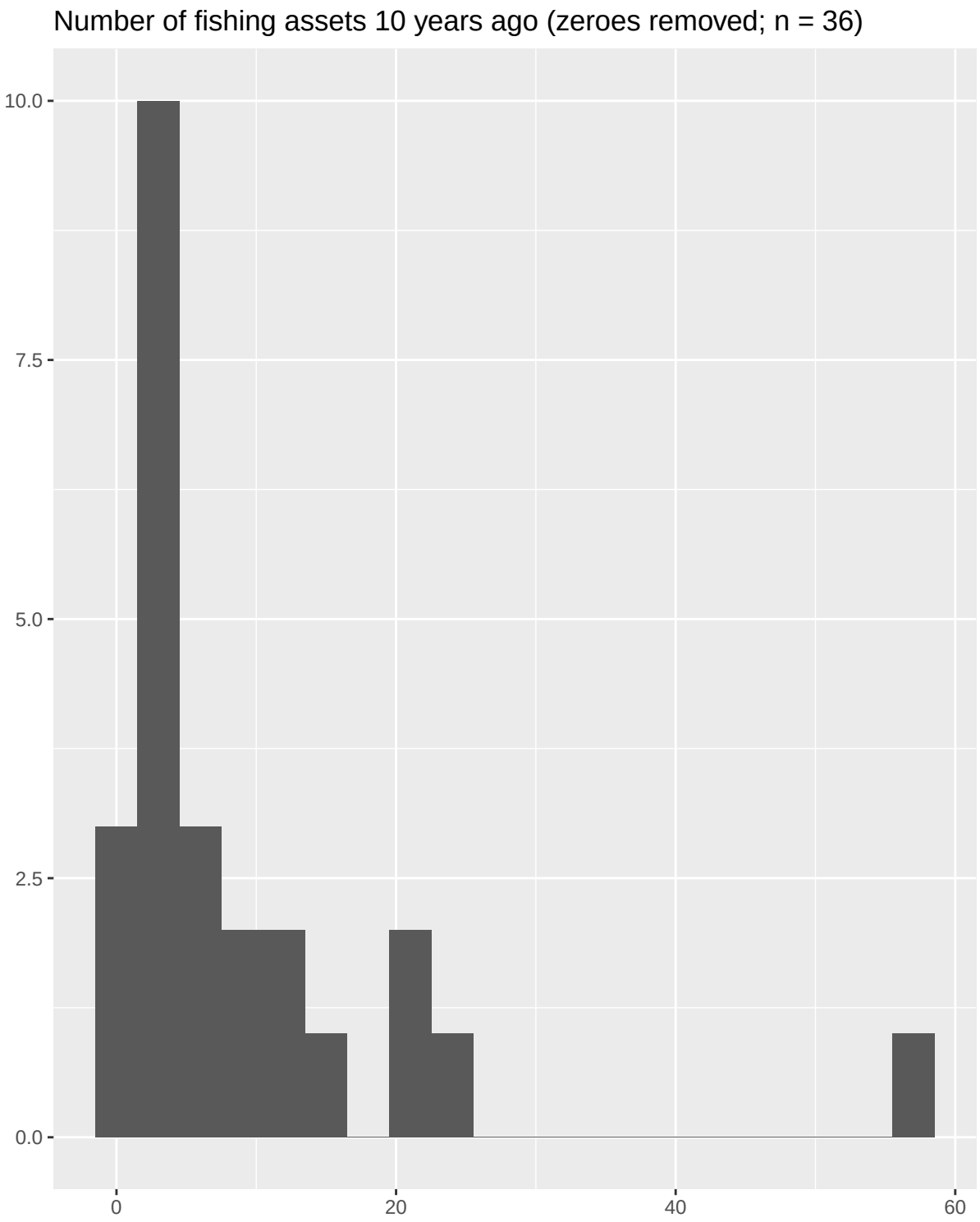
Asset: Wood canoes



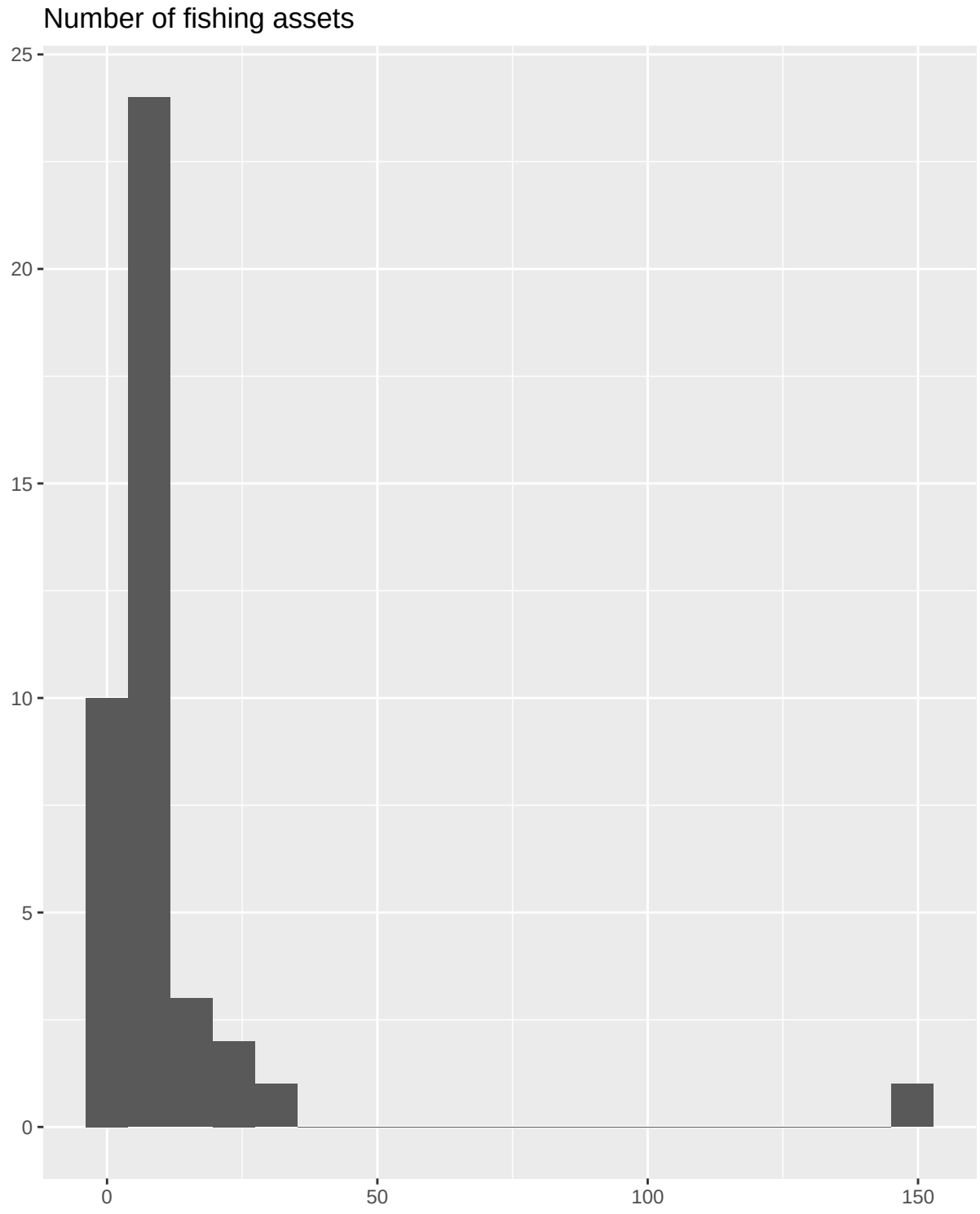

Number of fishing assets 10 years ago (zeroes removed; n = 7)
40
20
0
0
250
500
750
1000

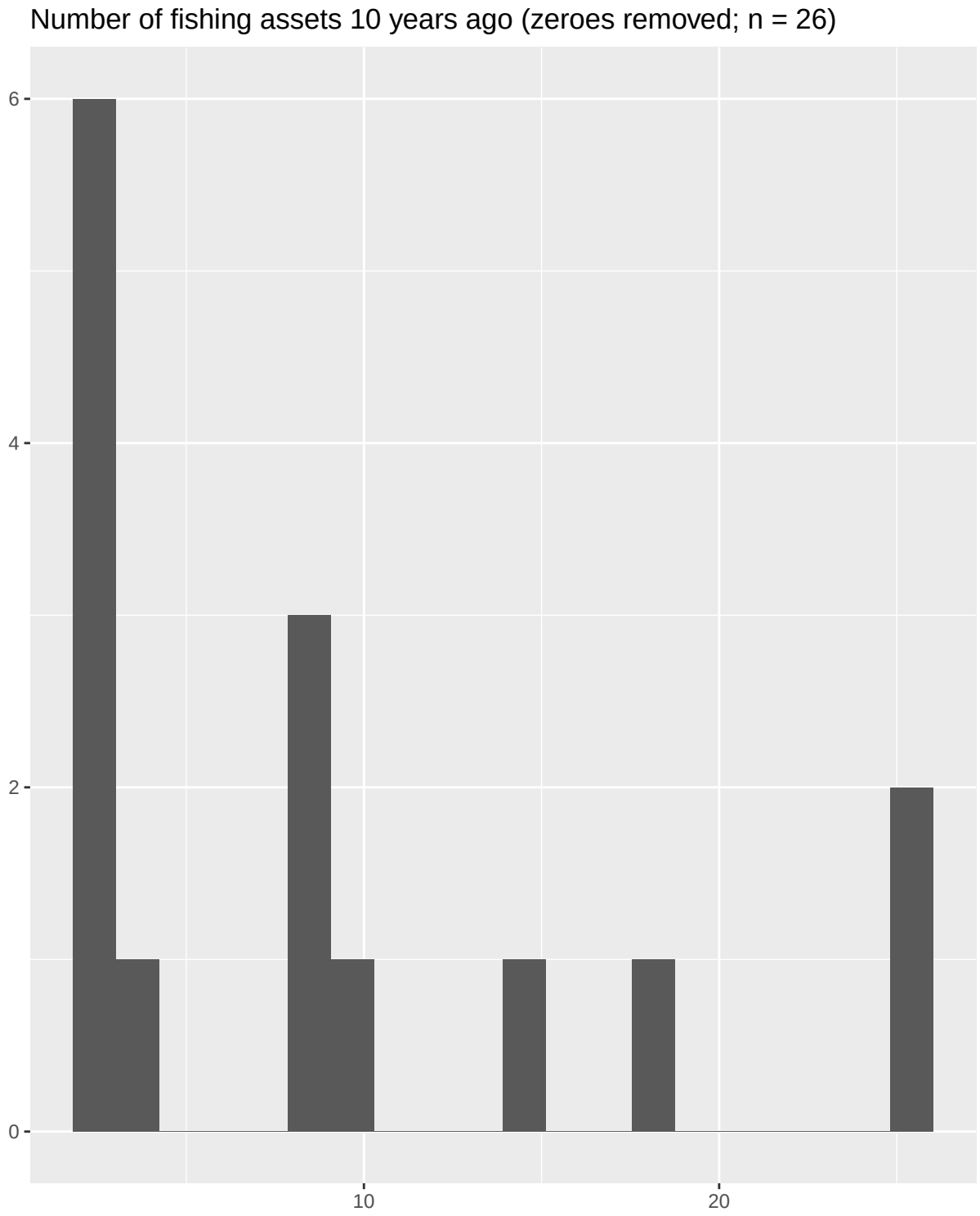
Asset: Eskies/portable coolers



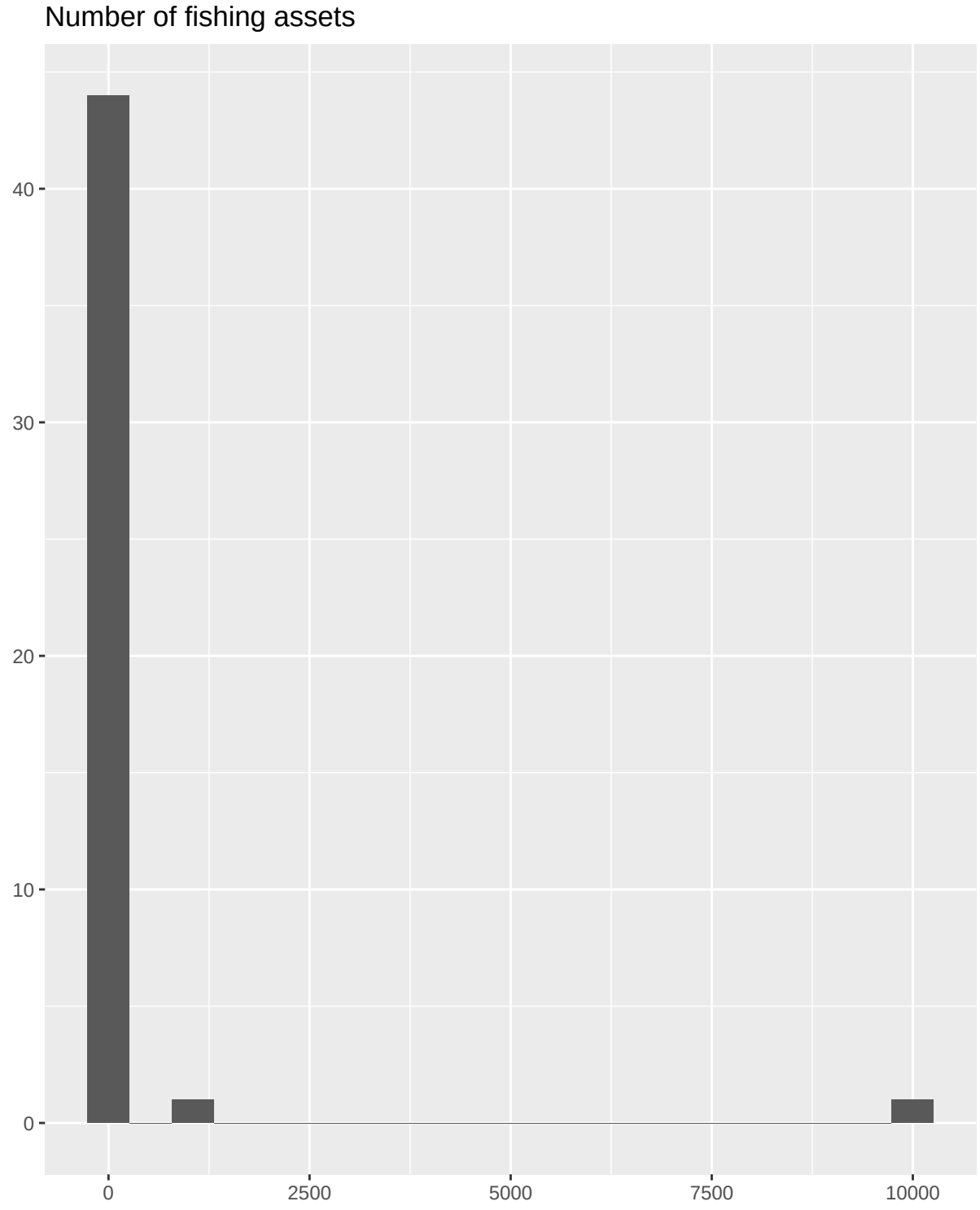

Number of fishing assets 10 years ago (zeroes removed; n = 36)
10.0
7.5
5.0
2.5
0.0
0
20
40
60

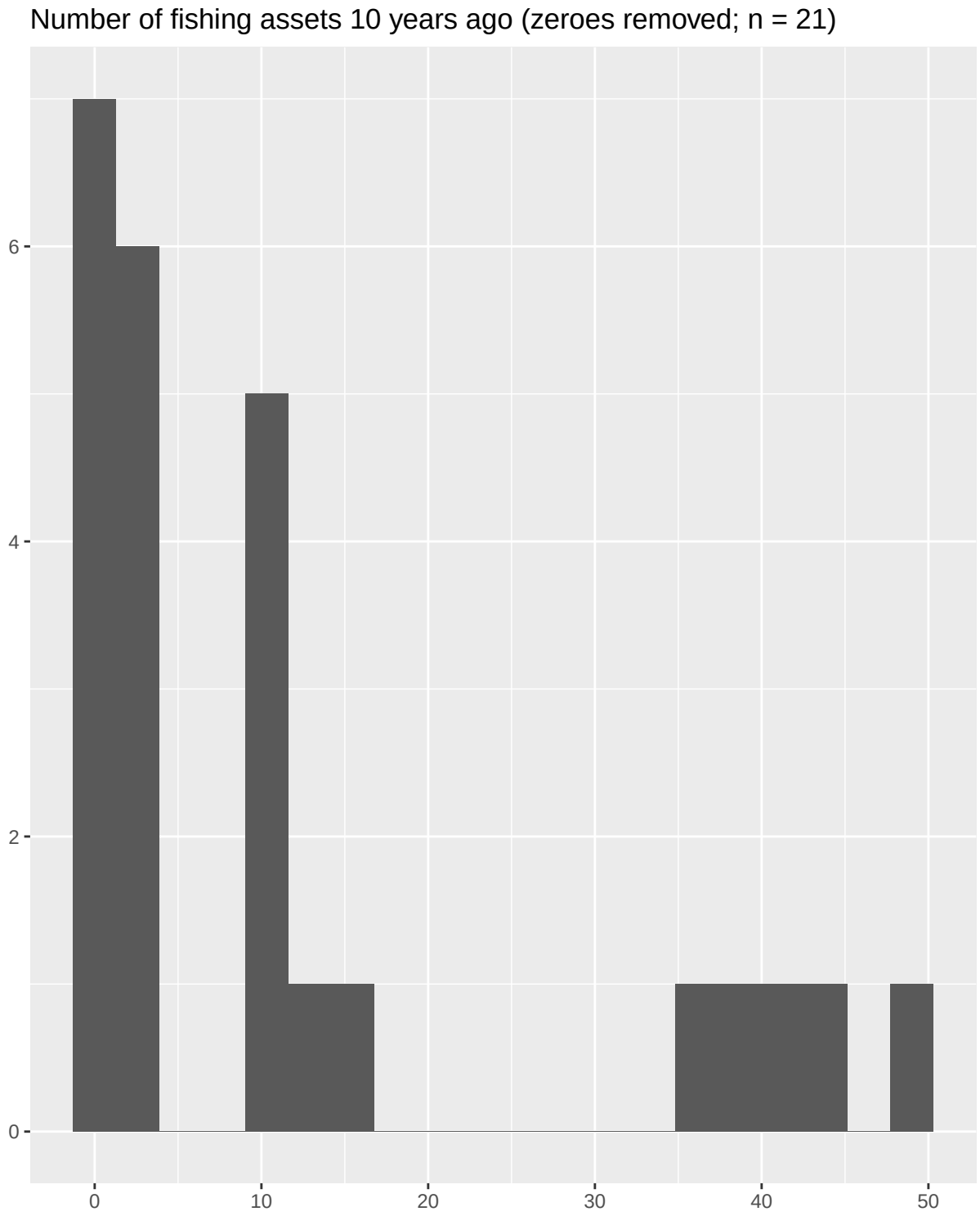
Asset: SCUBA diving equipment



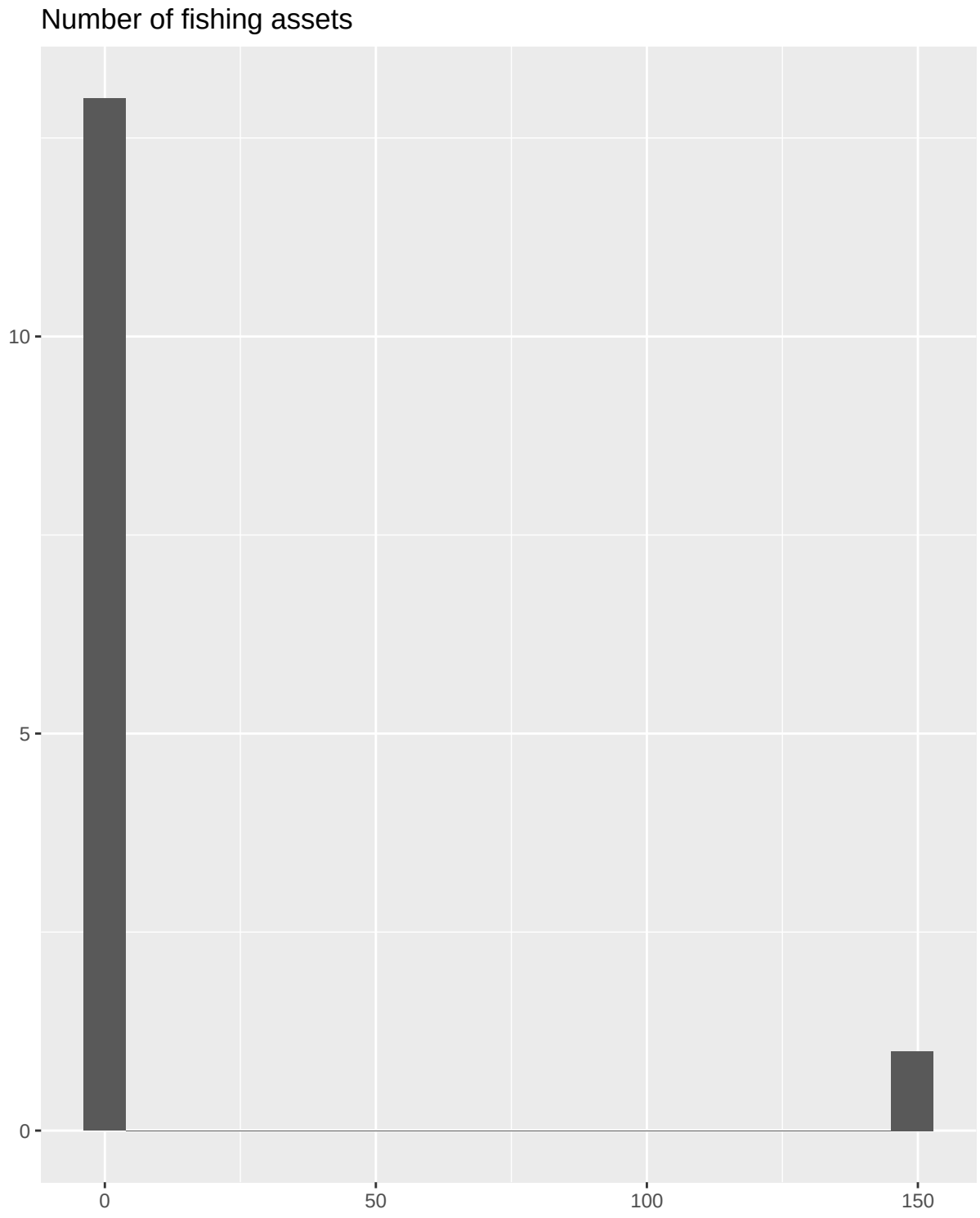

Number of fishing assets 10 years ago (zeroes removed; n = 26)
6
4
2
0
10
20

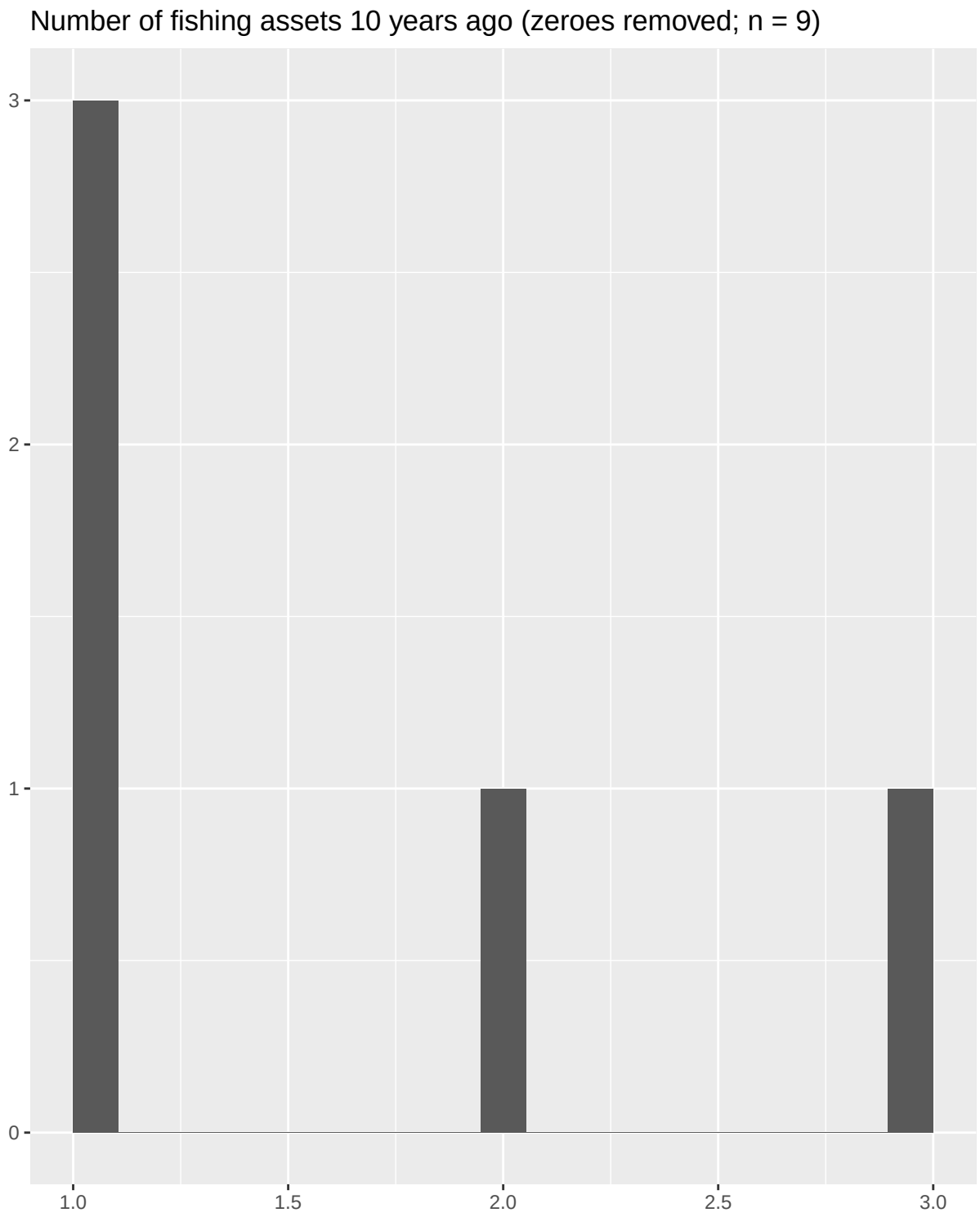
Asset: Freezers (electric or propane)



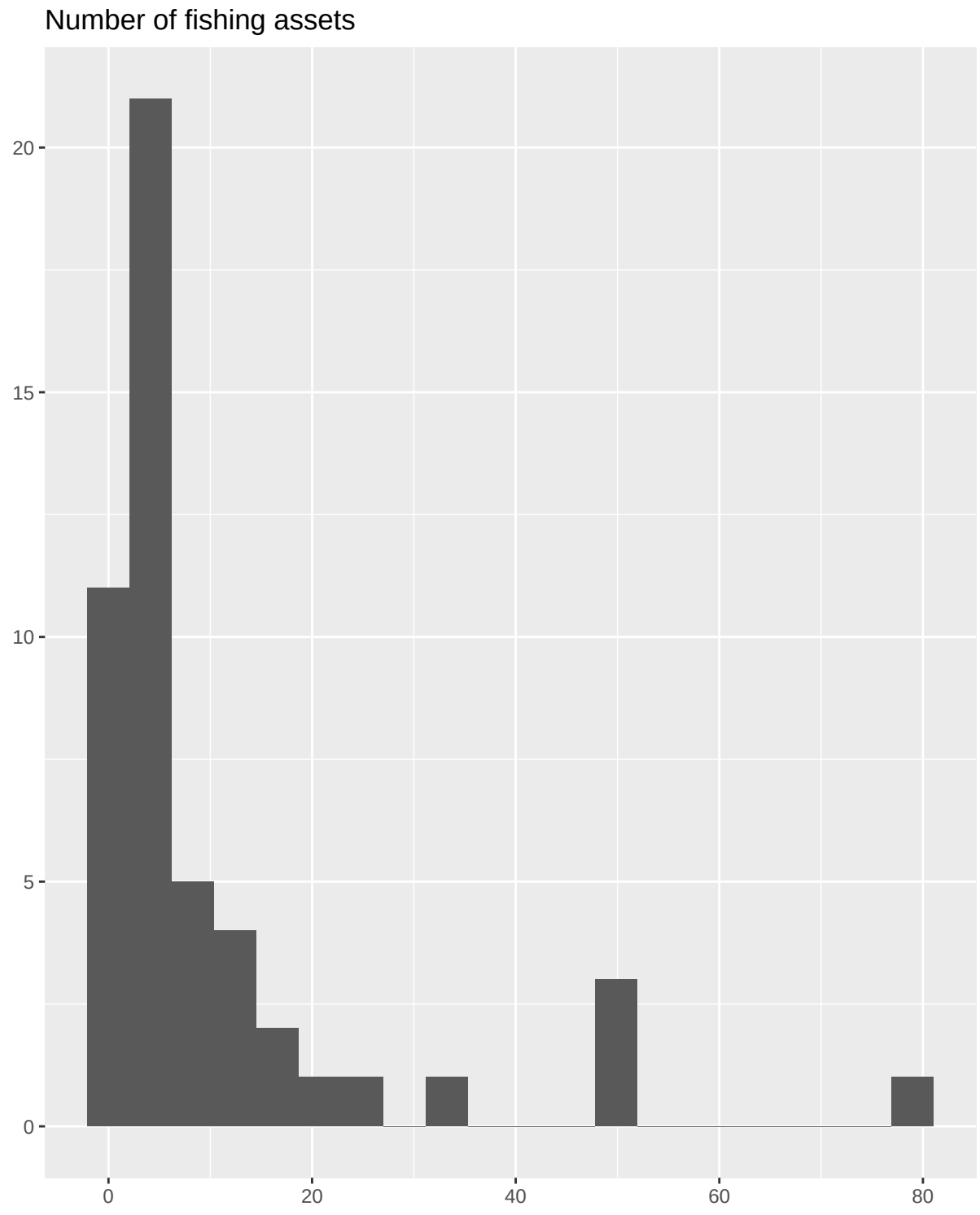

Number of fishing assets 10 years ago (zeroes removed; n = 21)
6
4
2
0
0
10
20
30
40
50

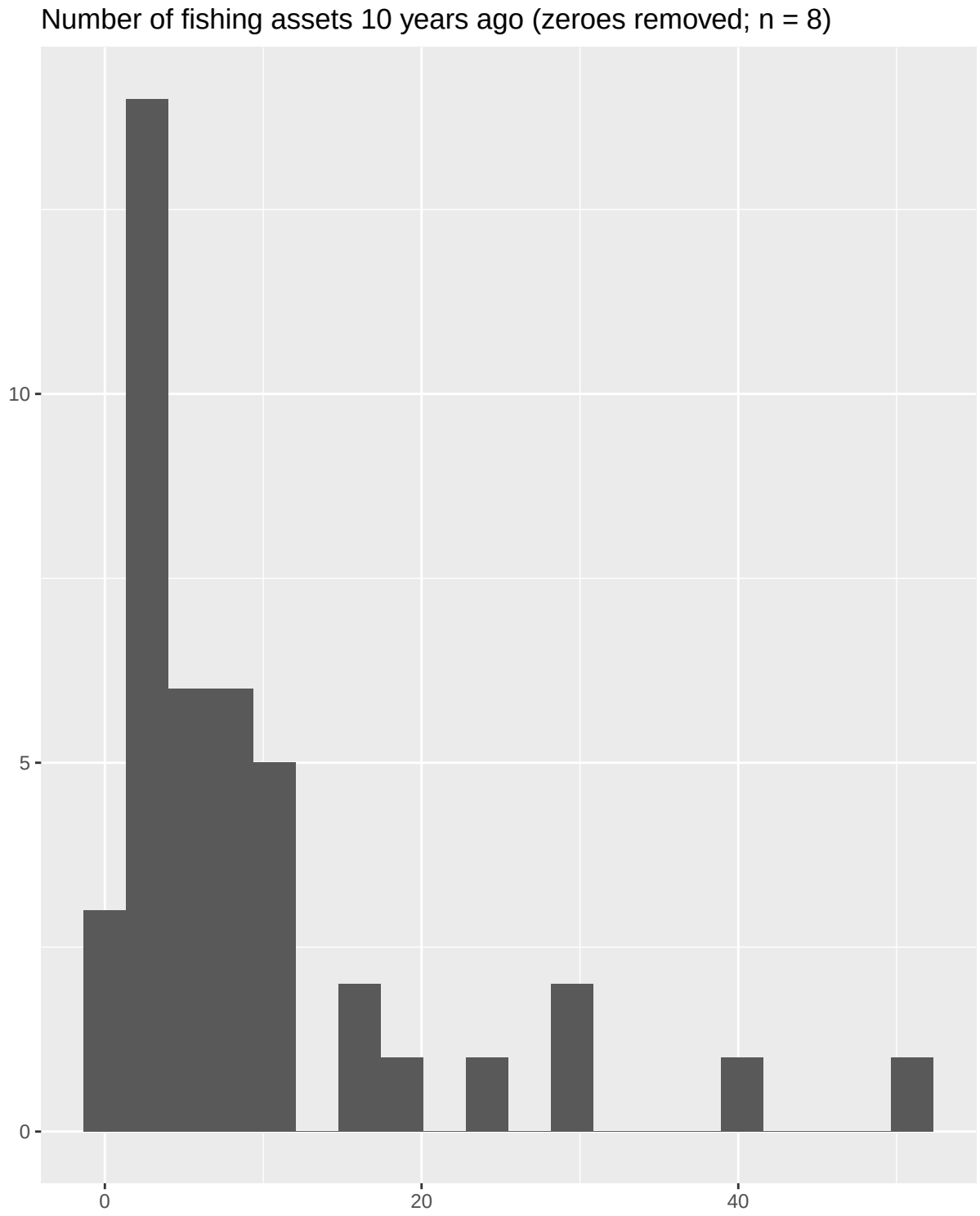
Asset: Ice machines



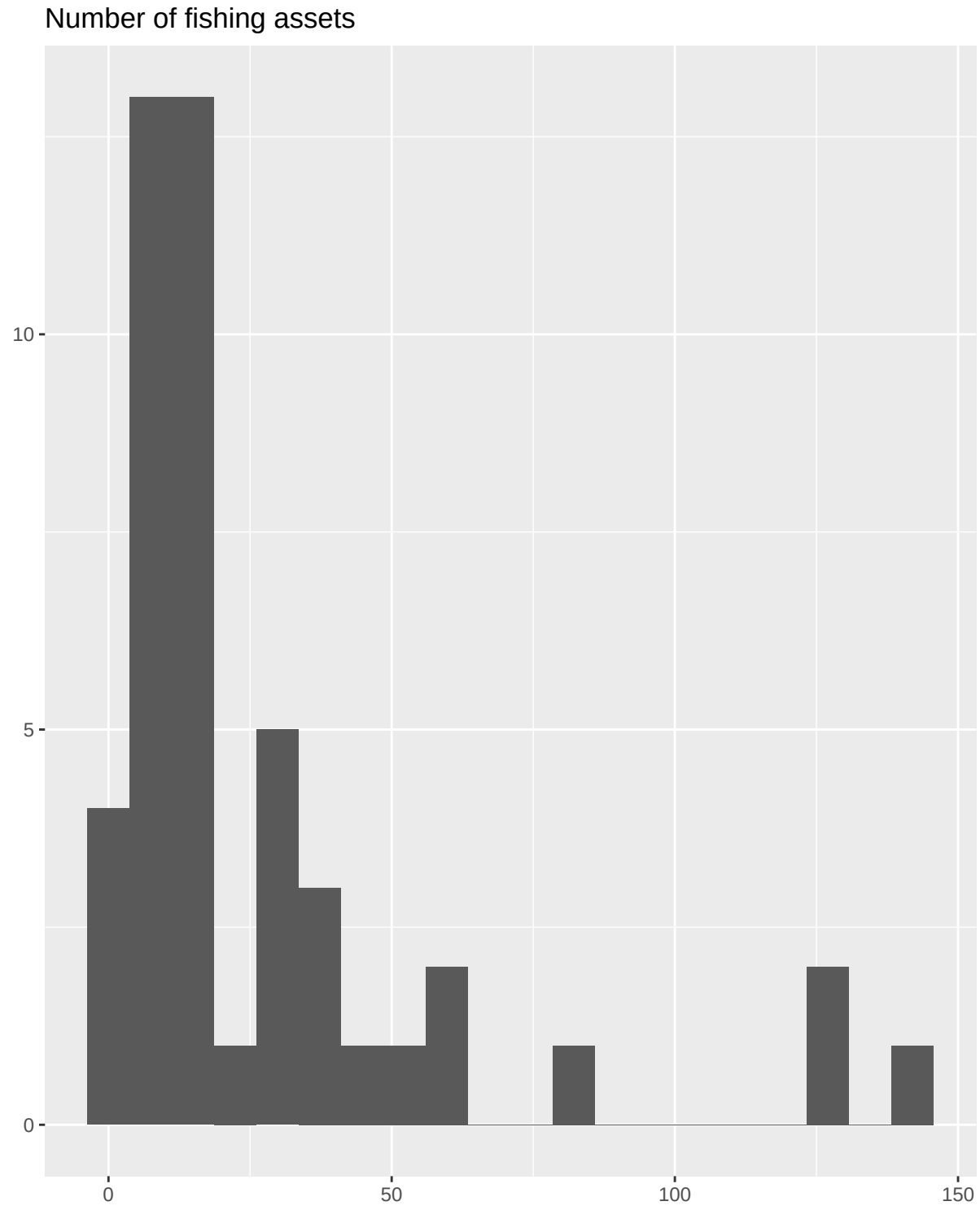

Number of fishing assets 10 years ago (zeroes removed; n = 9)
3
2
1
0
1.0
1.5
2.0
2.5
3.0

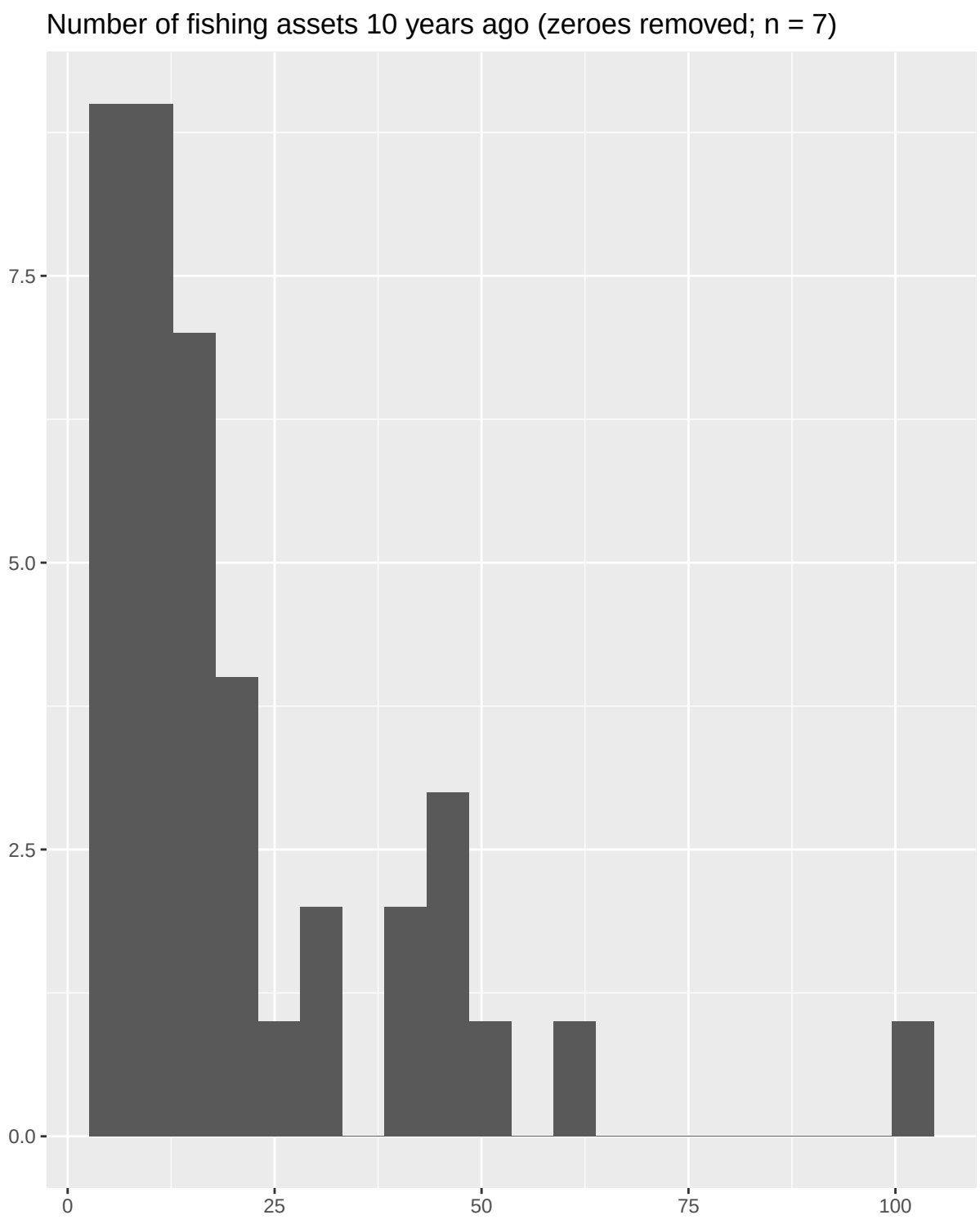
Asset: Fishing Nets (purse)



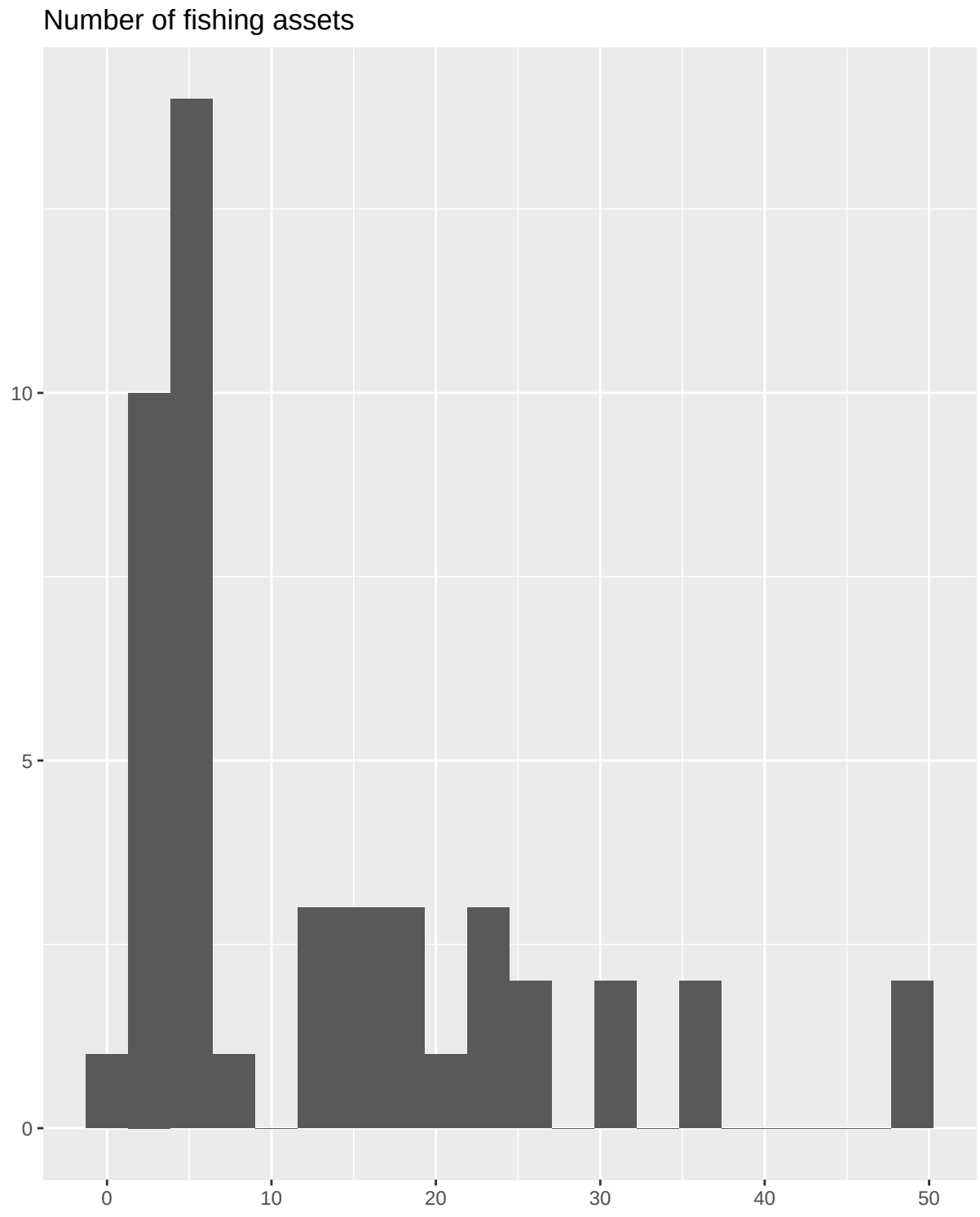

Number of fishing assets 10 years ago (zeroes removed; n = 8)
10
5
0
0
20
40

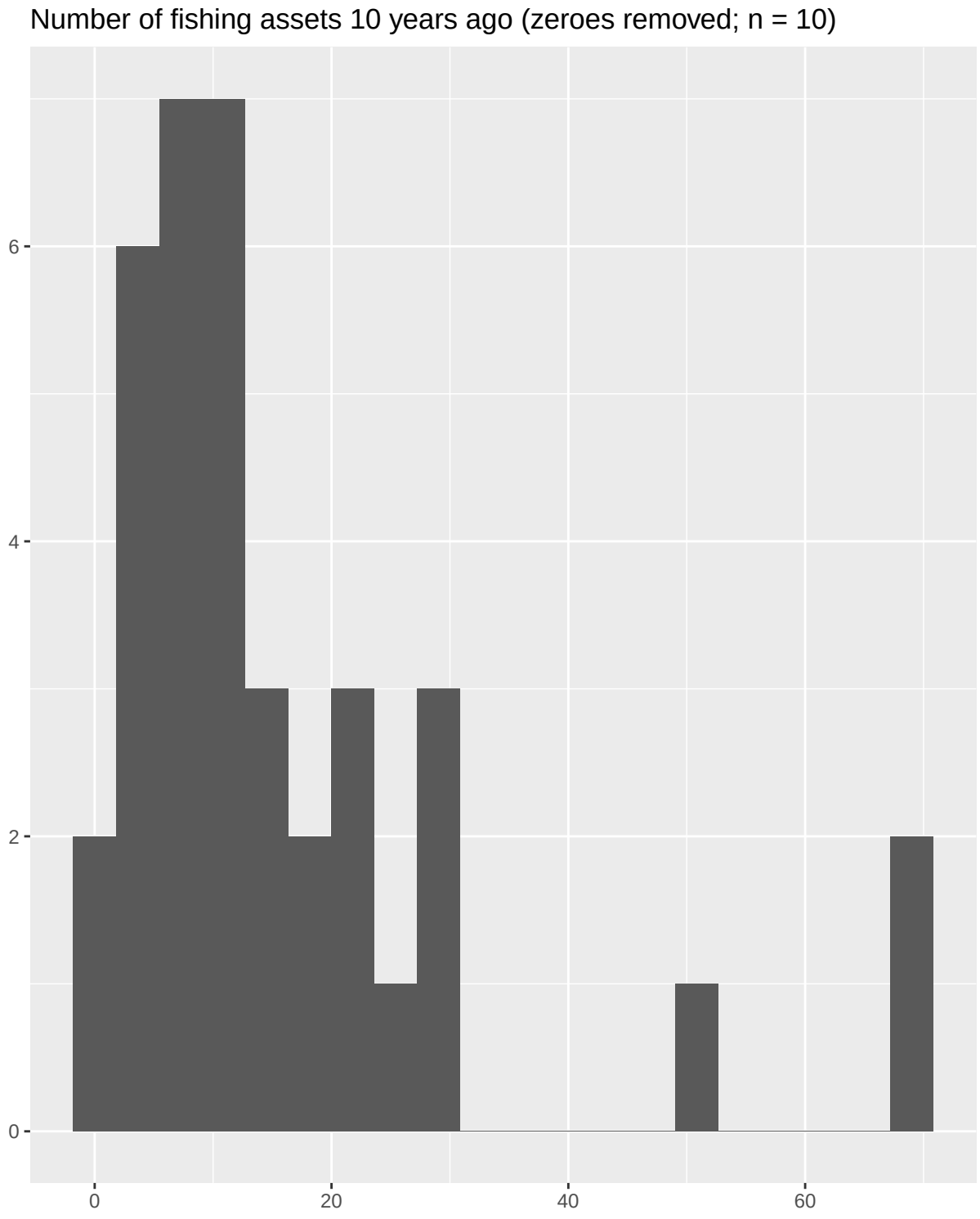
Asset: Drag Nets



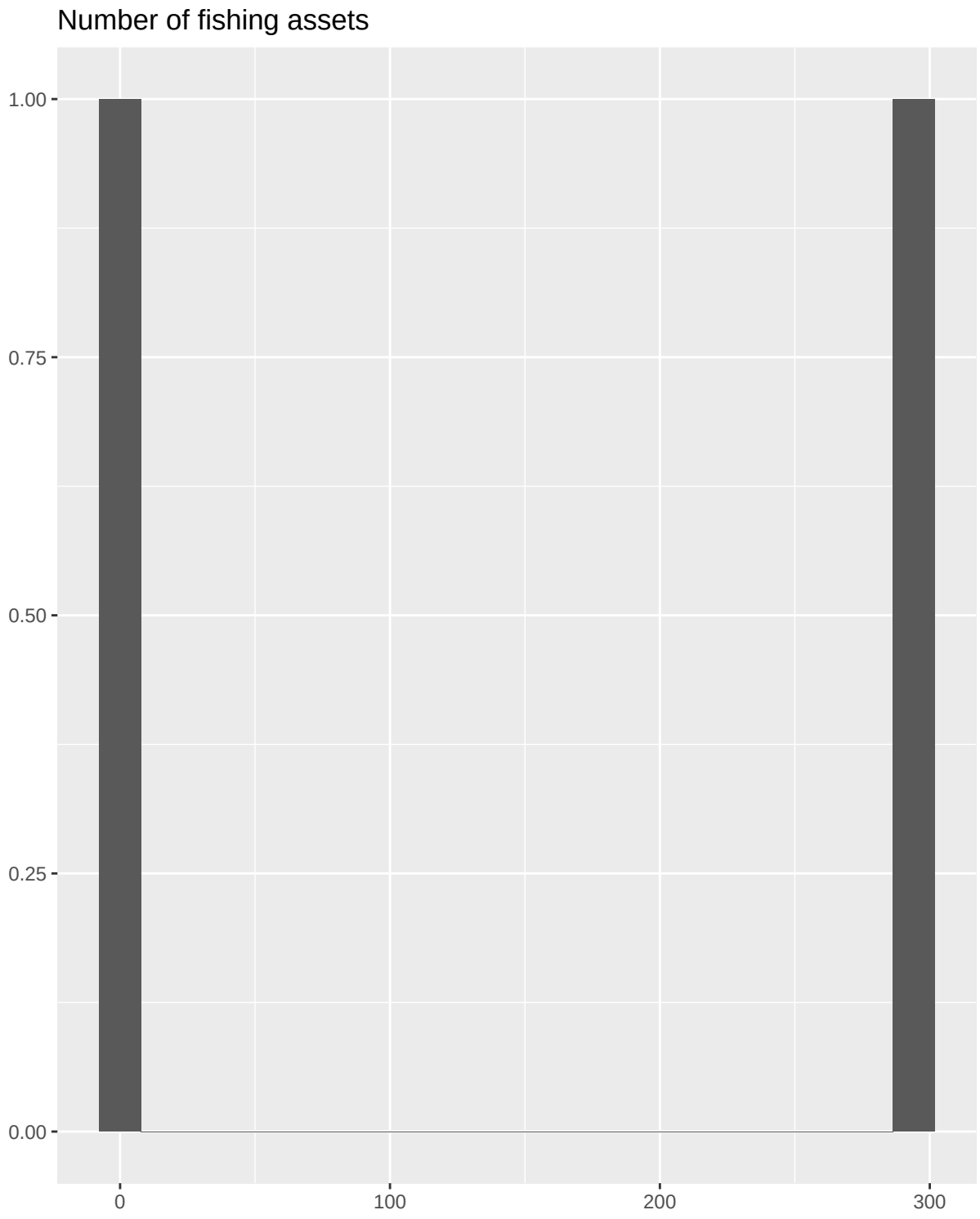

Number of fishing assets 10 years ago (zeroes removed; n = 7)
7.5
5.0
2.5
0.0
0
25
50
75
100

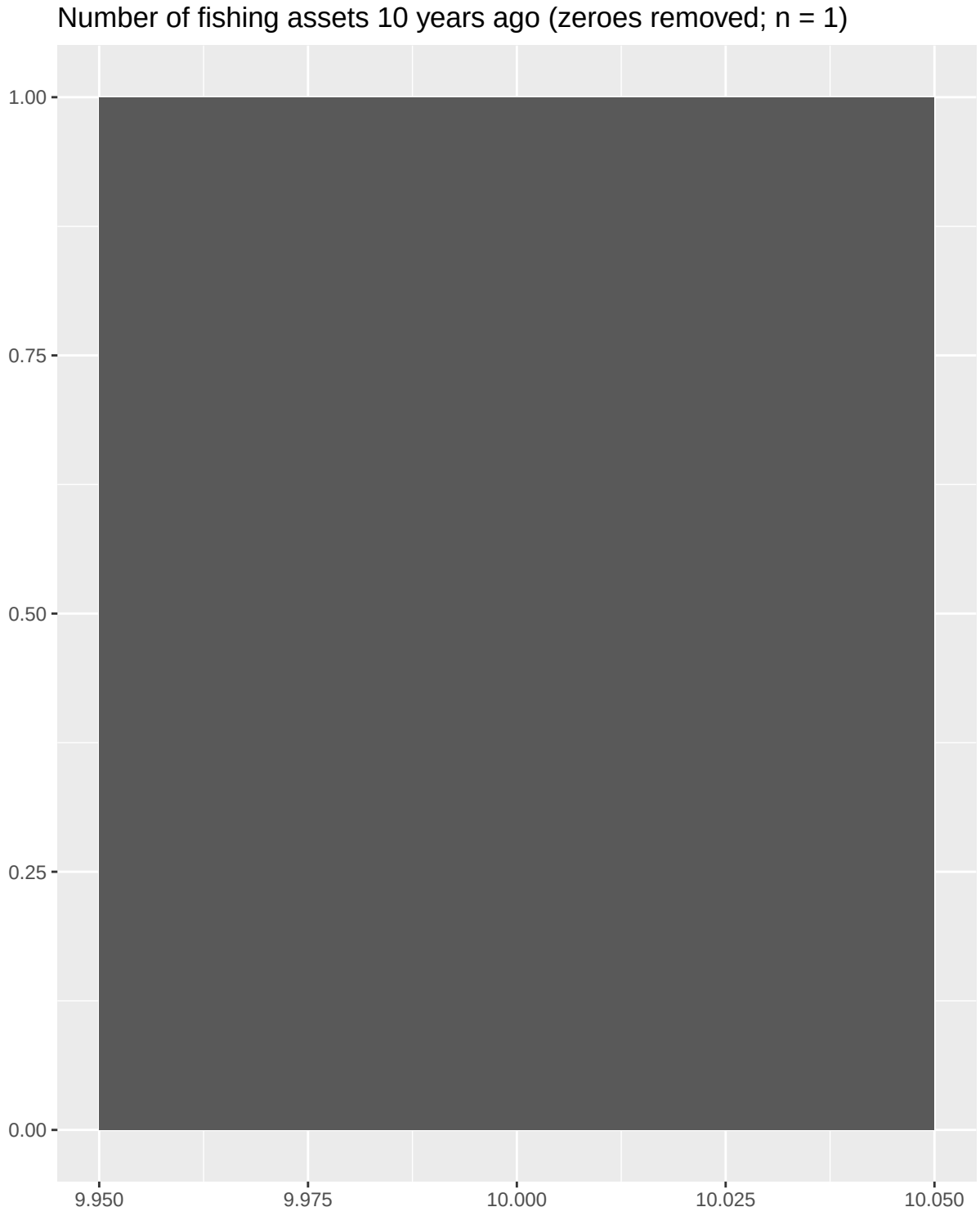
Asset: Harpoons/Spears



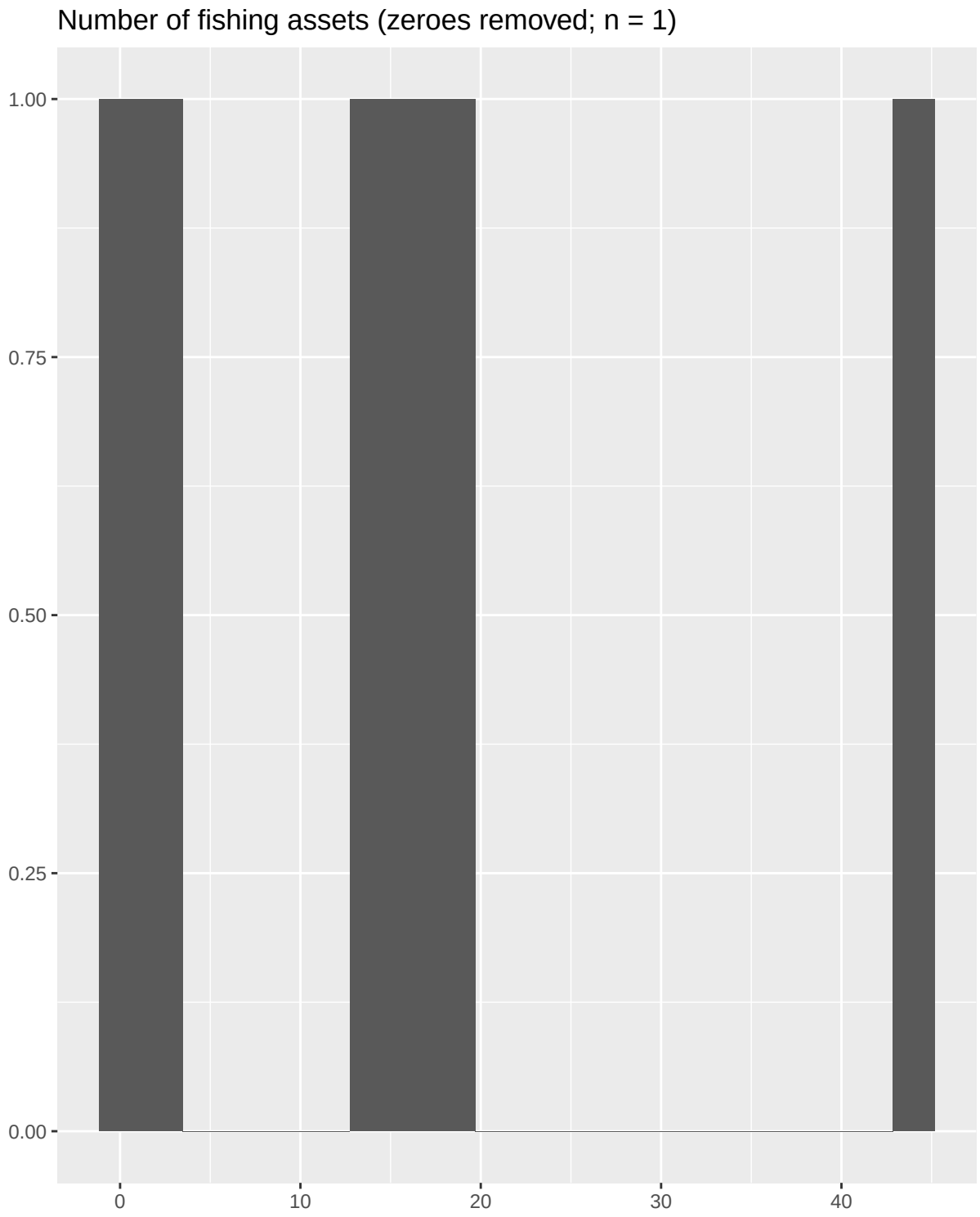

Number of fishing assets 10 years ago (zeroes removed; n = 10)
6
4
2
0
0
20
40
60

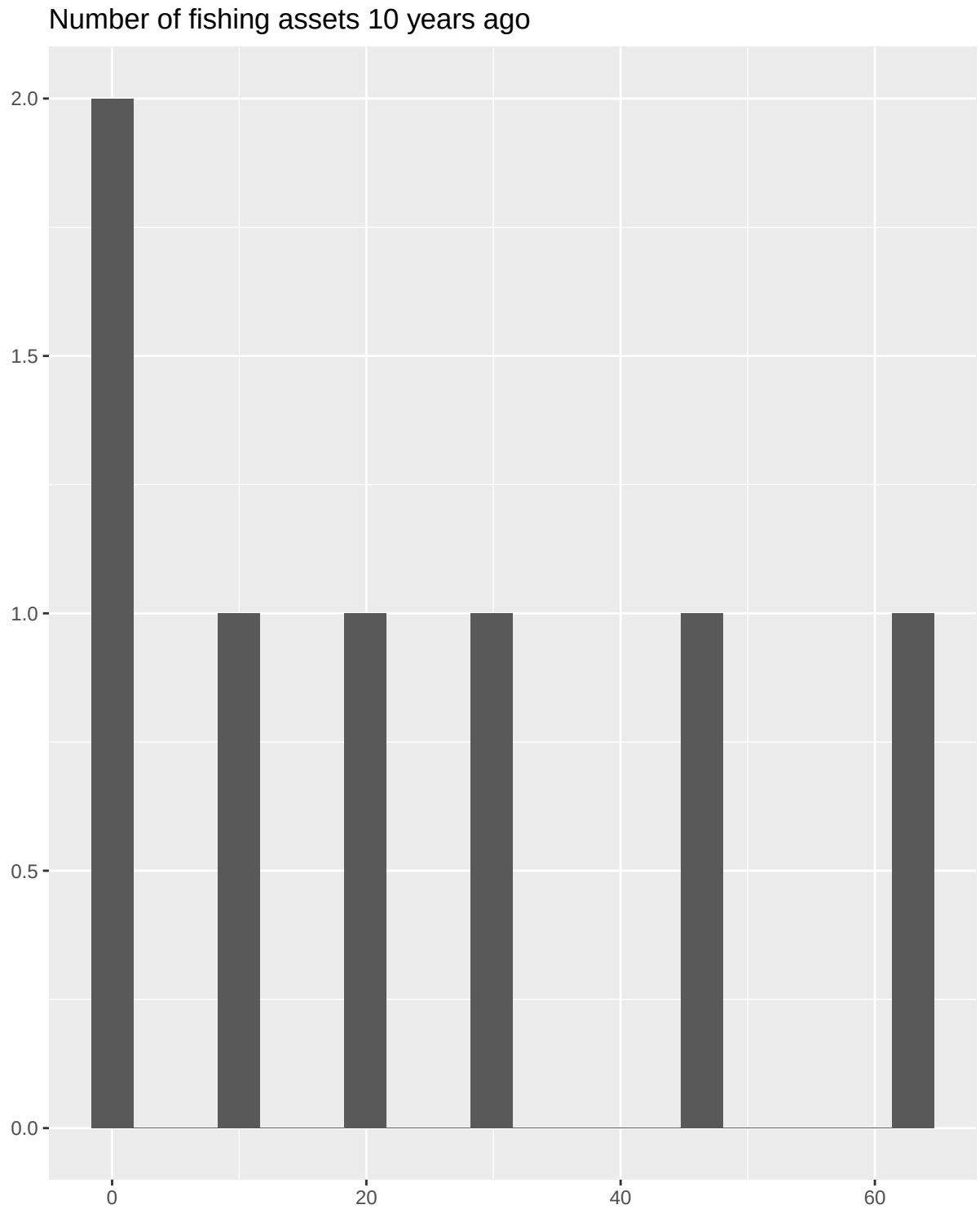
Asset: FAD (Fish Aggregating Device)




Number of fishing assets 10 years ago (zeroes removed; n = 1)
1.00
0.75
0.50
0.25
0.00
9.950
9.975
10.000
10.025
10.050

Asset: Other Fishing Equipment (note)

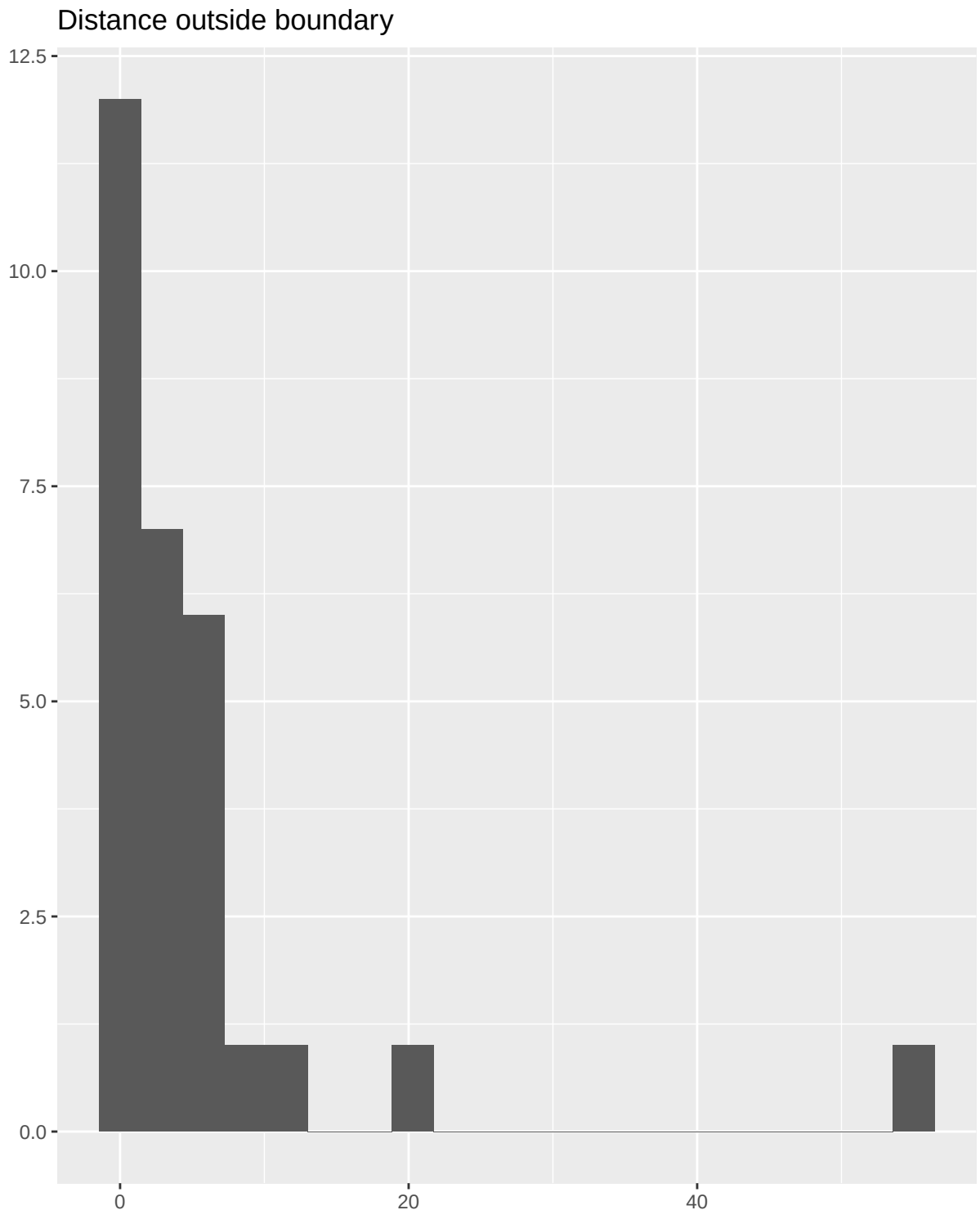


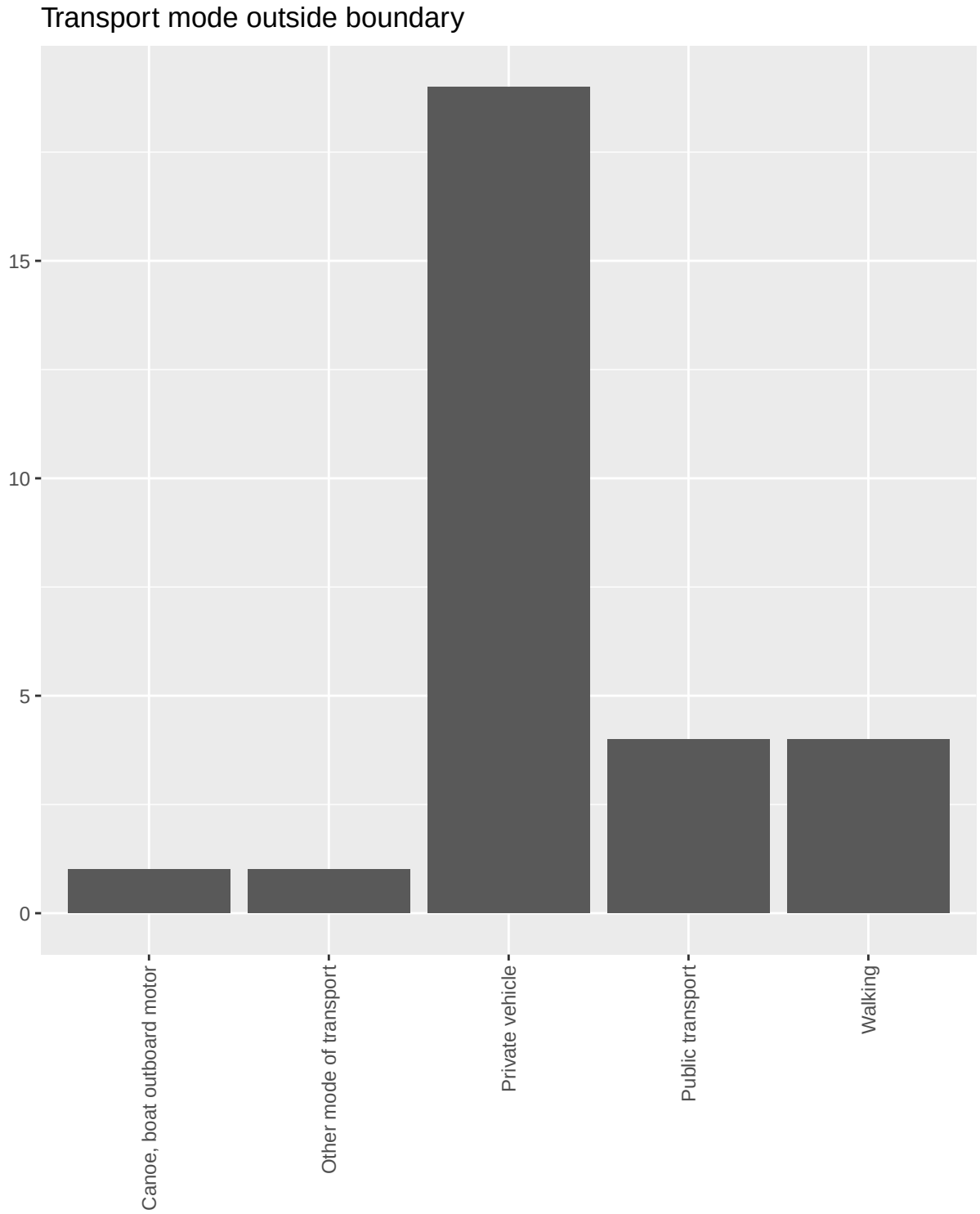

Number of fishing assets 10 years ago
2.0
1.5
1.0
0.5
0.0
0
20
40
60

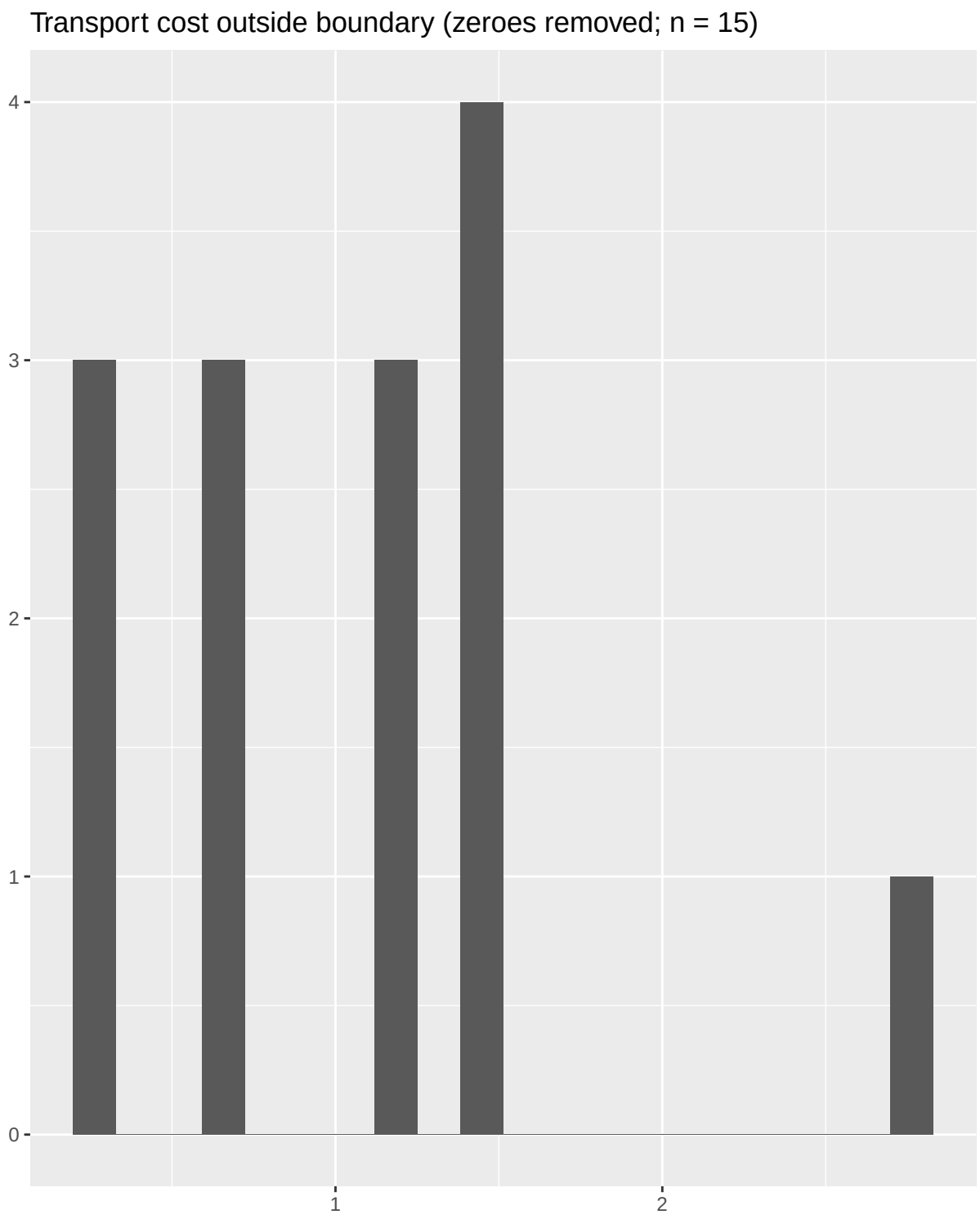
Outside Roster Data: List of outside assets

```
## # A tibble: 11 x 1
##    outside_roster__id
##    <chr>
##  1 Clinic/Hospital
##  2 Bank
##  3 Nearest Market
##  4 Nearest Post Office
##  5 Nearest Credit Facility
##  6 Nearest Police Station
##  7 Nearest Court House
##  8 Airport
##  9 Nearest Trade Store/Supermarket
## 10 Nearest fish landing site
## 11 Nearest Church
```

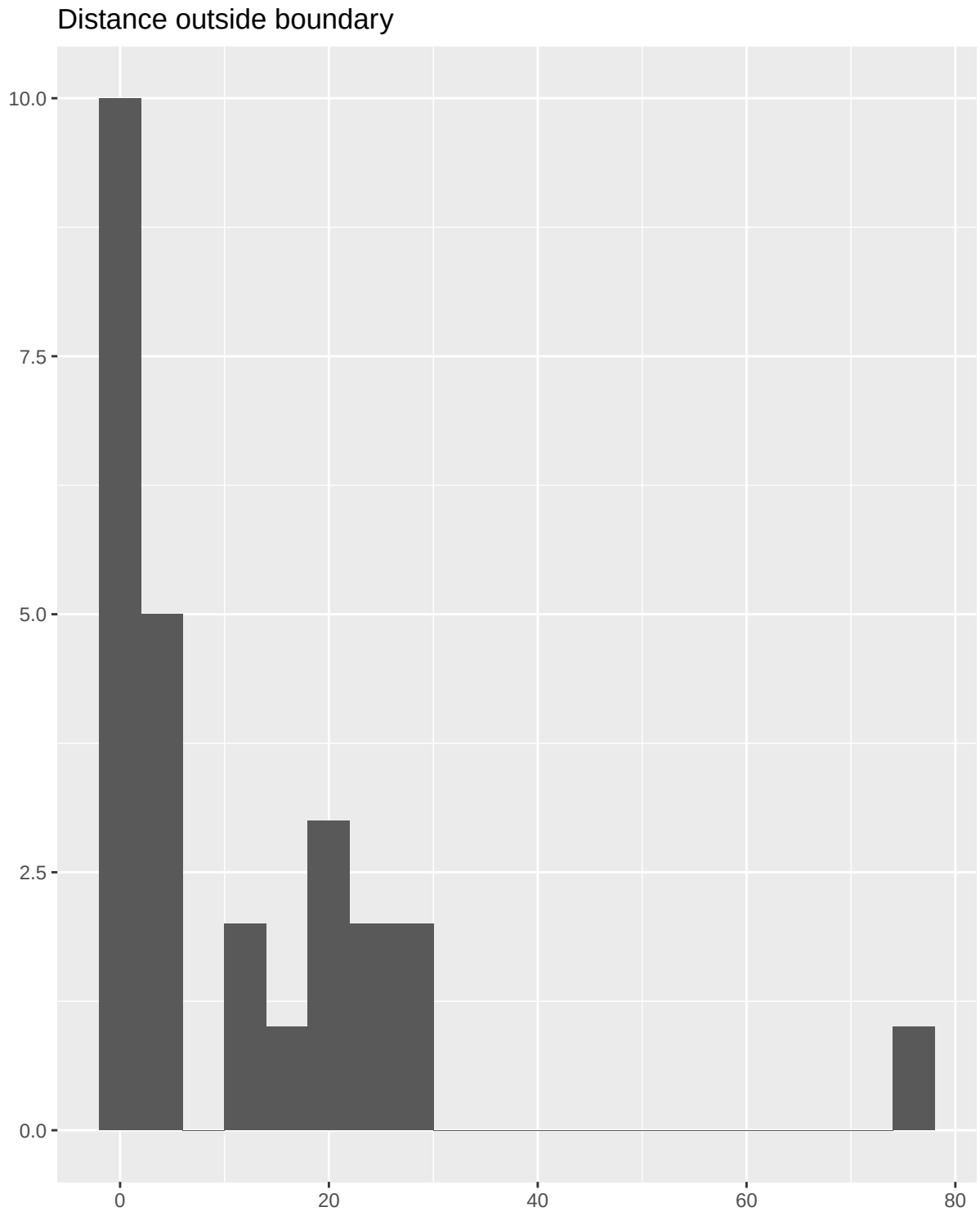
Asset: Clinic/Hospital

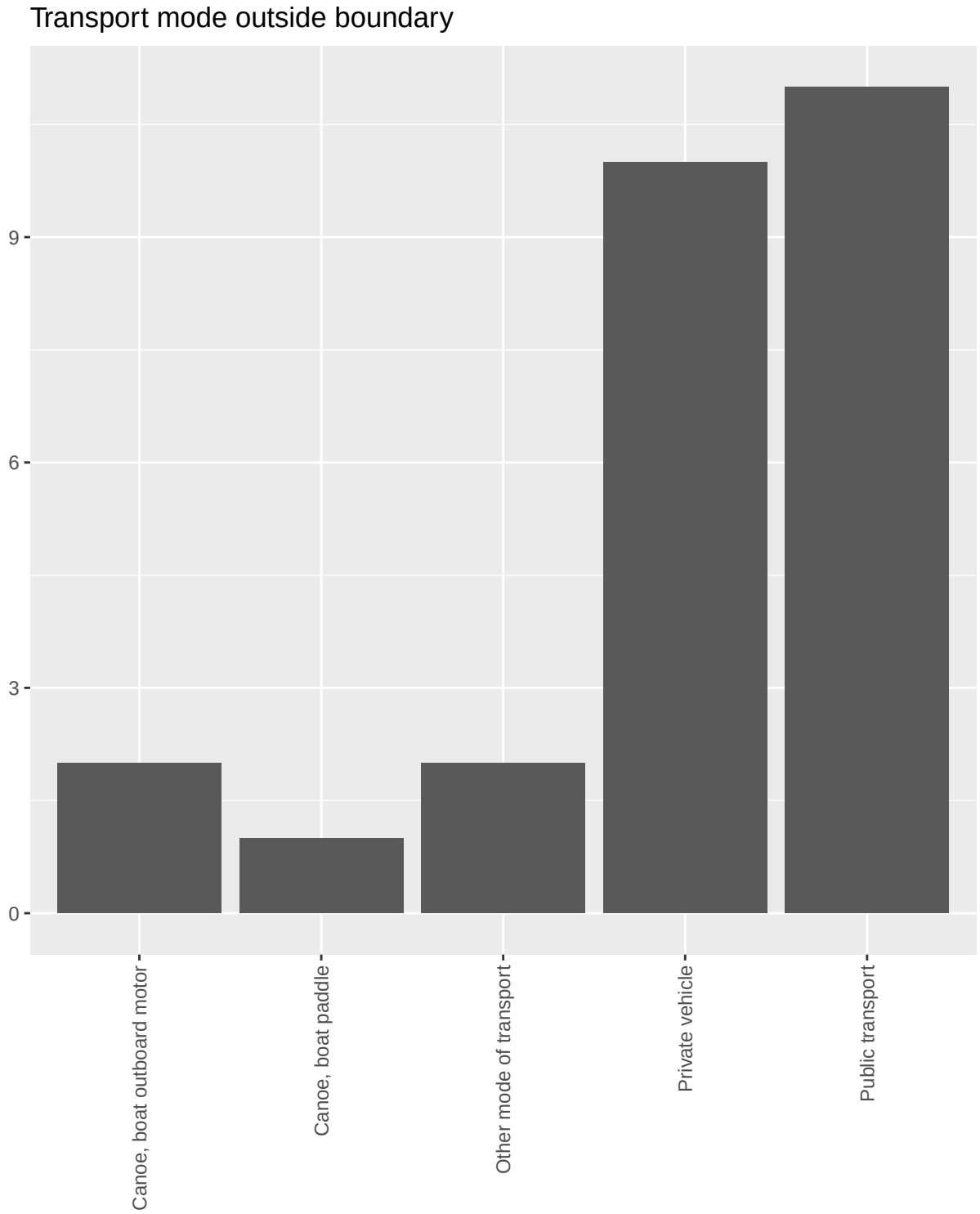


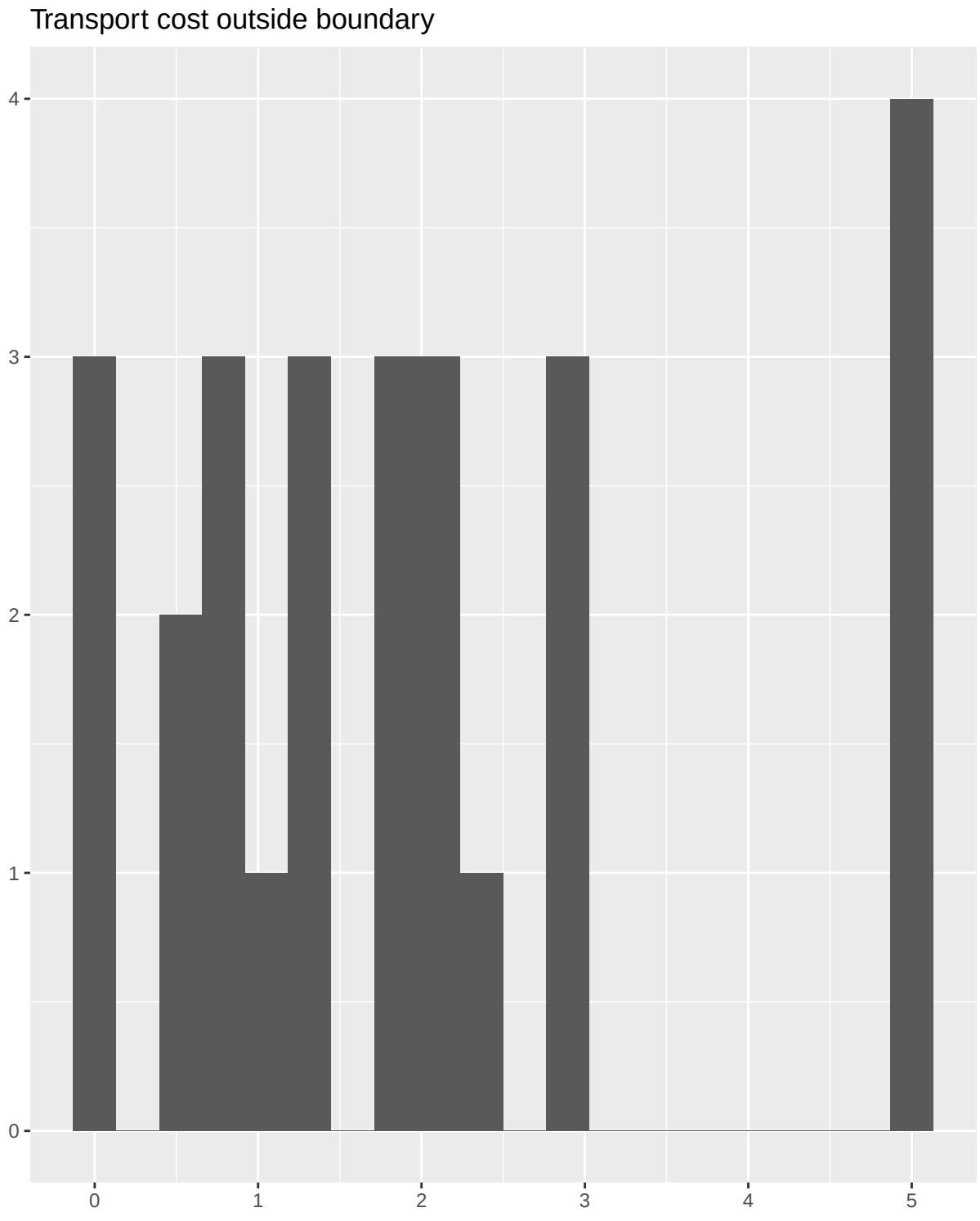

Transport mode outside boundary
15
10
5
0
Canoe, boat outboard motor
Other mode of transport
Private vehicle
Public transport
Walking


Transport cost outside boundary (zeroes removed; n = 15)
4
3
2
1
0
1
2

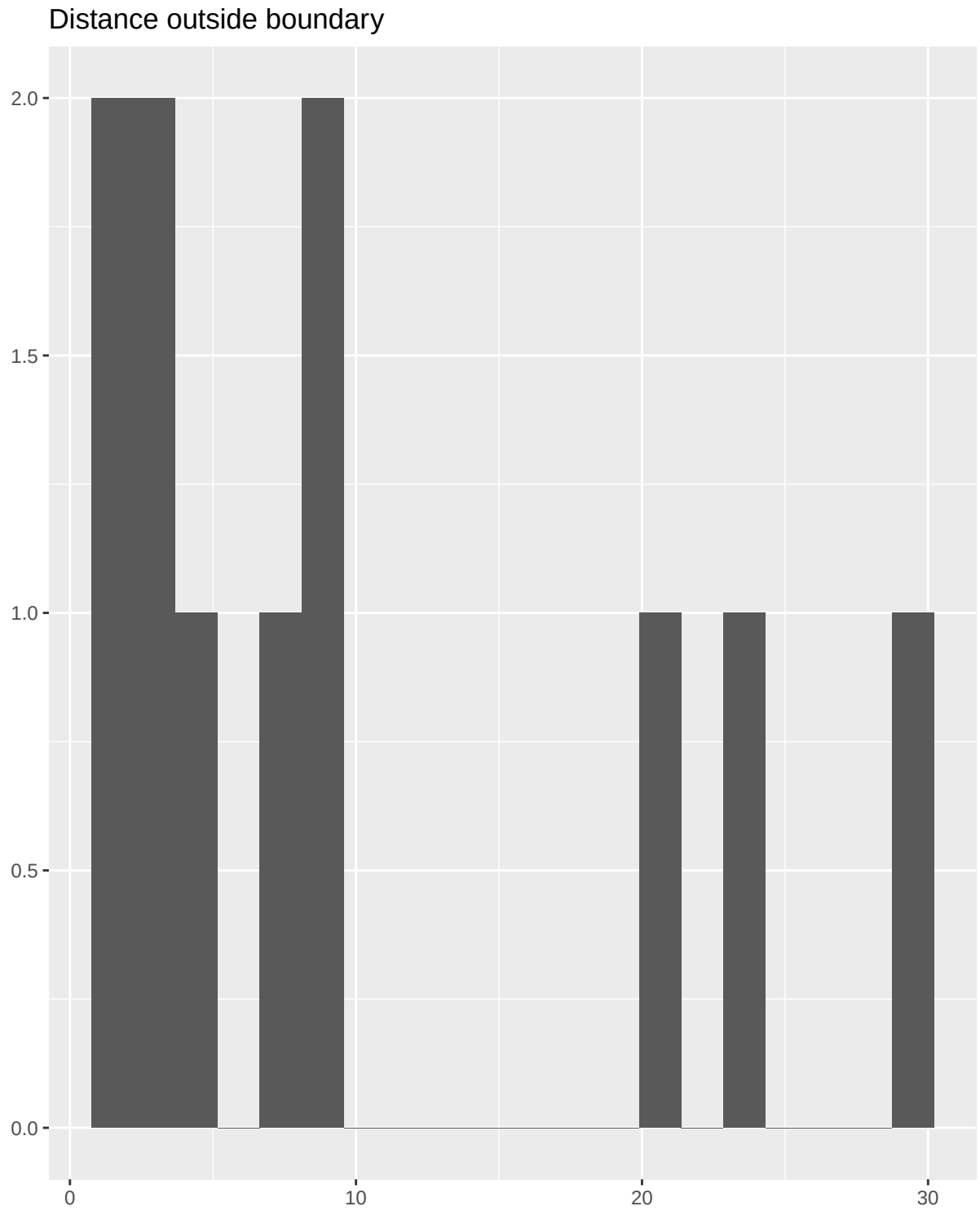
Asset: Bank

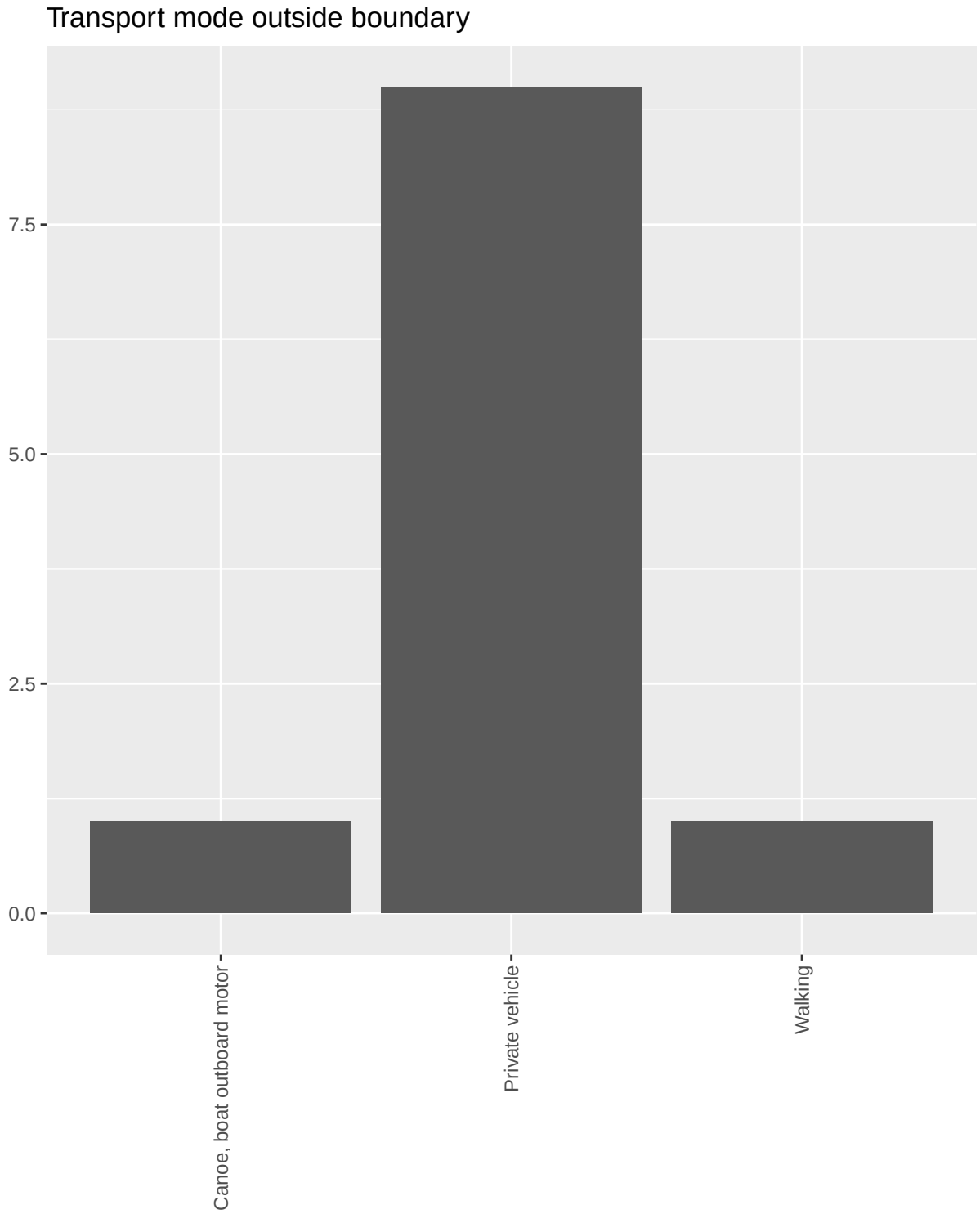


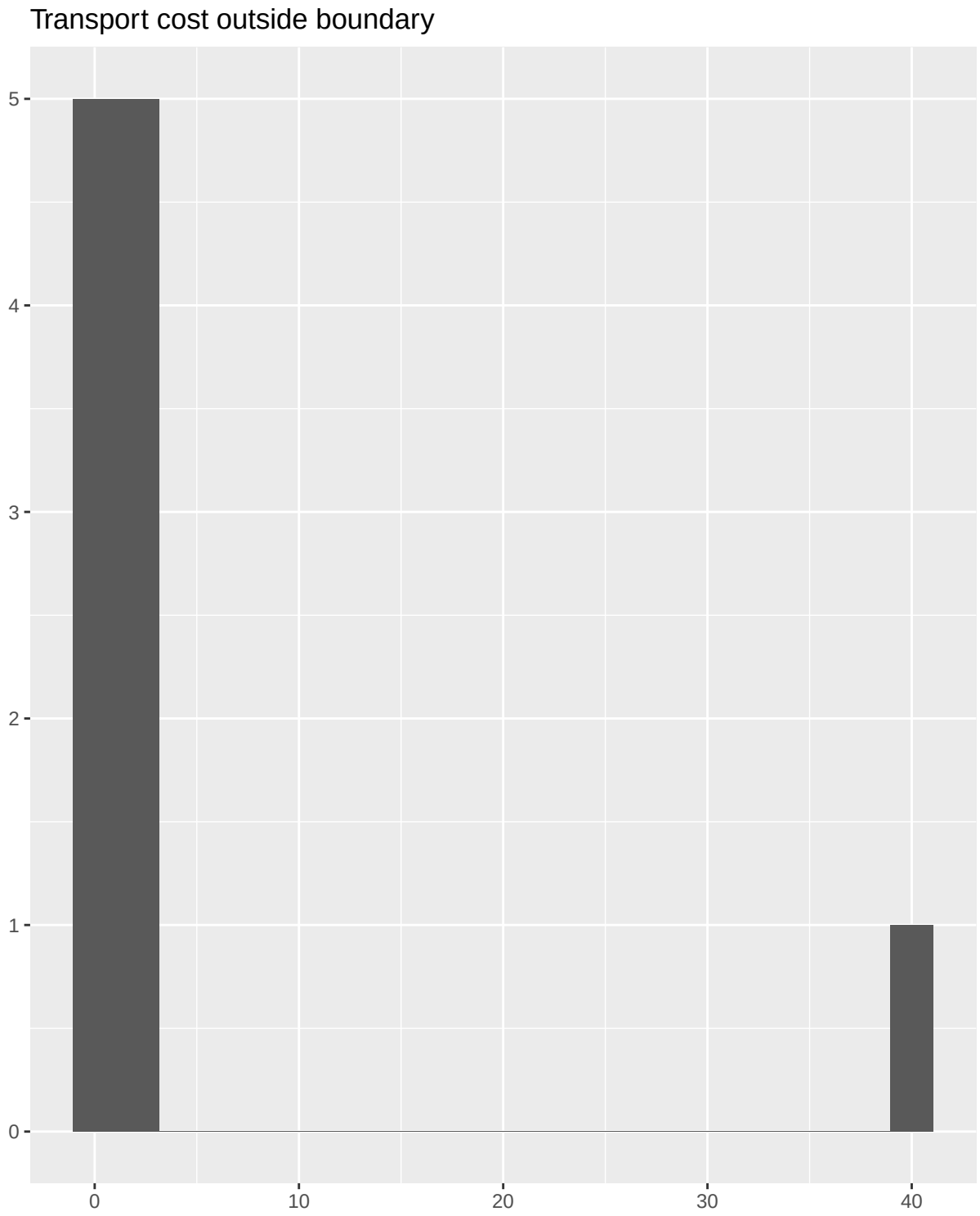

Transport mode outside boundary
9
6
3
0
Canoe, boat outboard motor
Canoe, boat paddle
Other mode of transport
Private vehicle
Public transport


Transport cost outside boundary
4
3
2
1
0
0
1
2
3
4
5

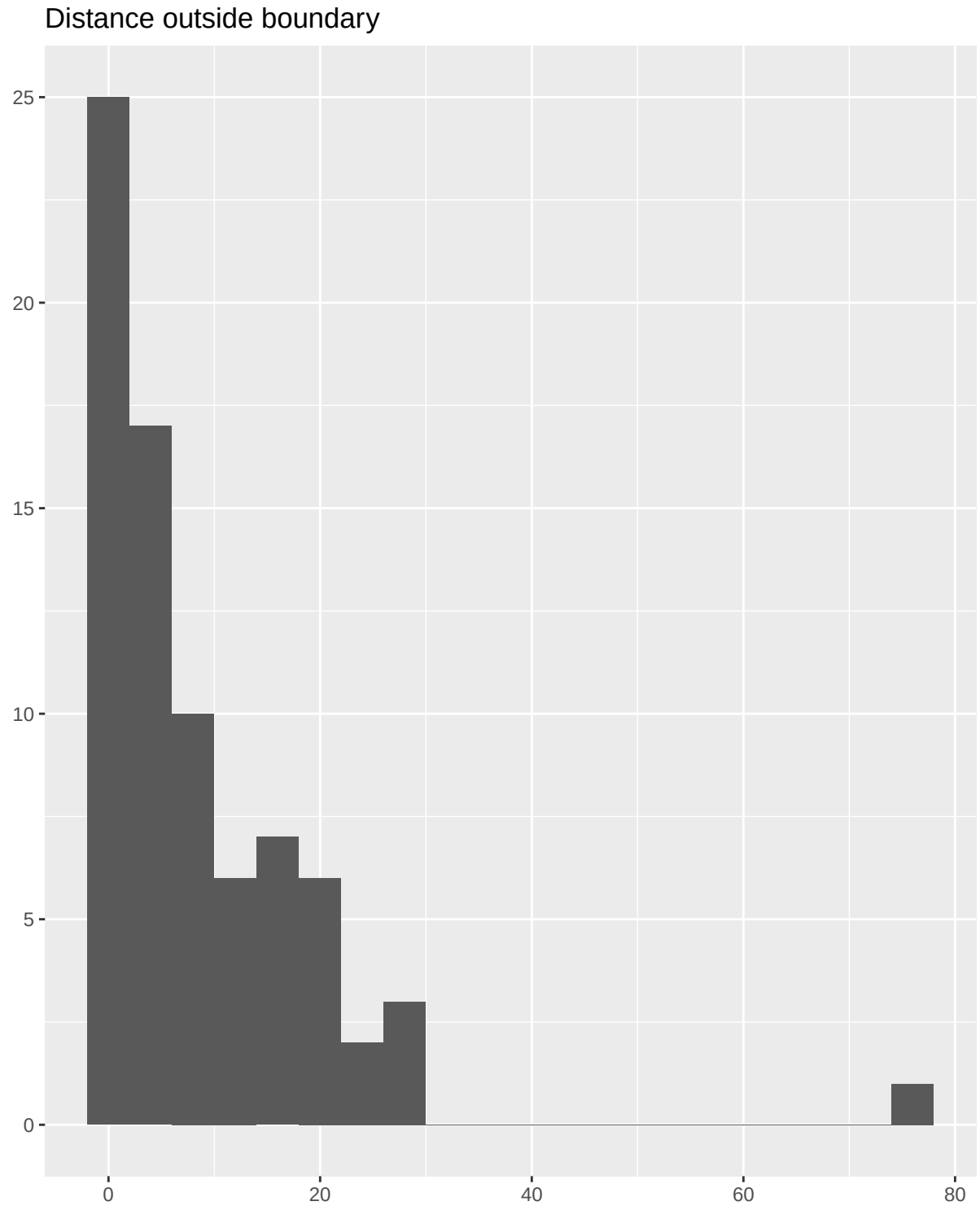
Asset: Nearest Market

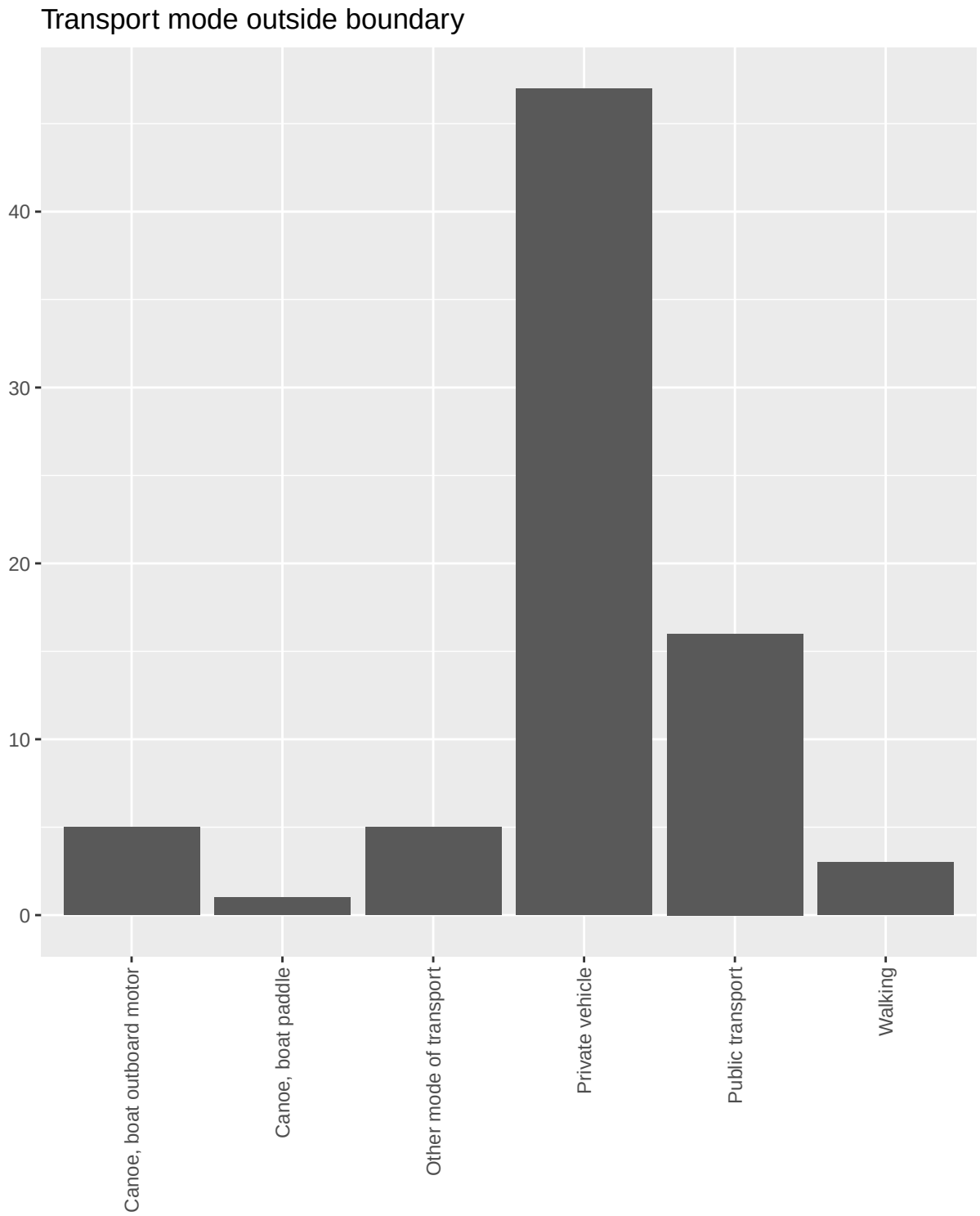


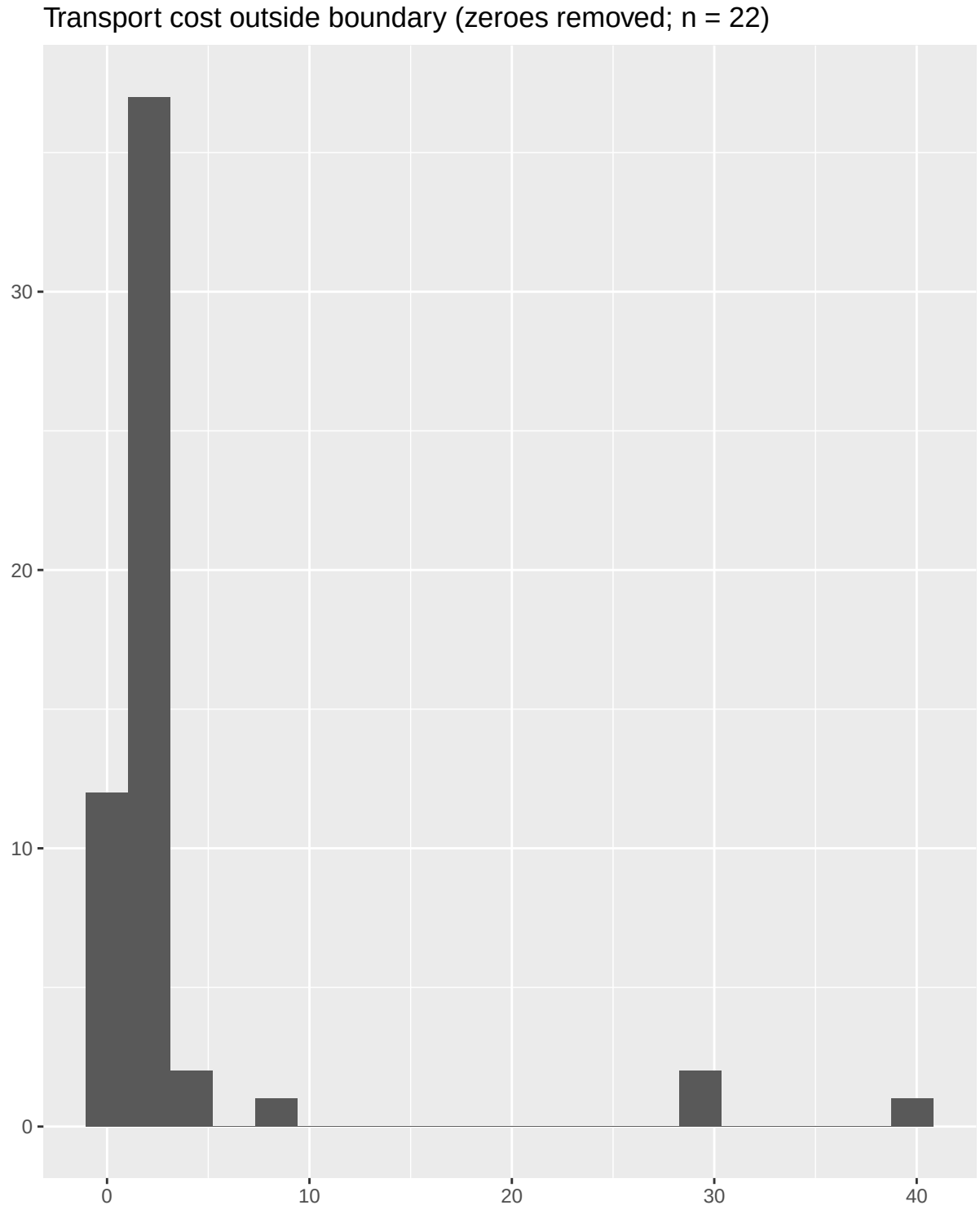

Transport mode outside boundary
7.5
5.0
2.5
0.0
Canoe, boat outboard motor
Private vehicle
Walking


Transport cost outside boundary
5
4
3
2
1
0
0
10
20
30
40

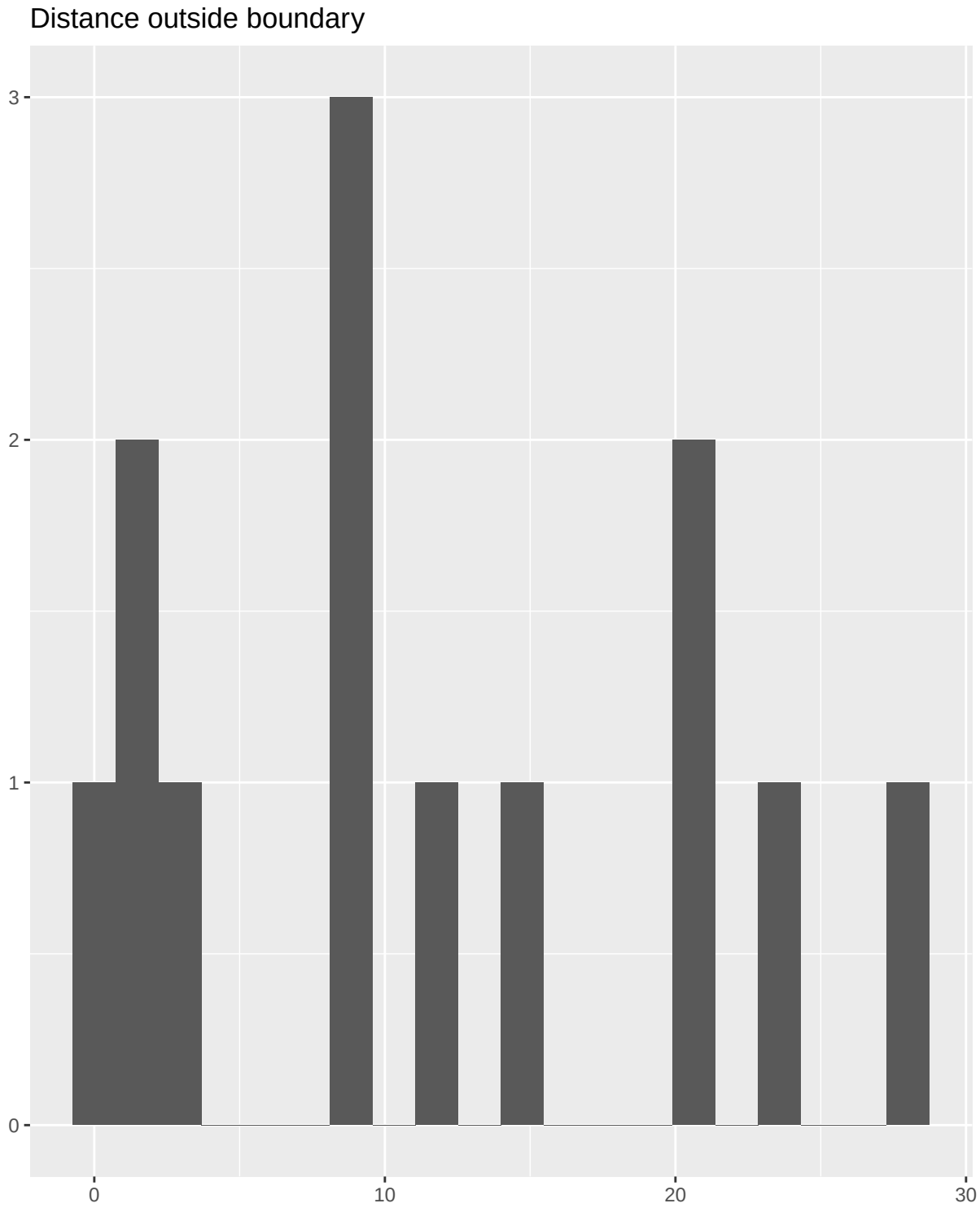
Asset: Nearest Post Office

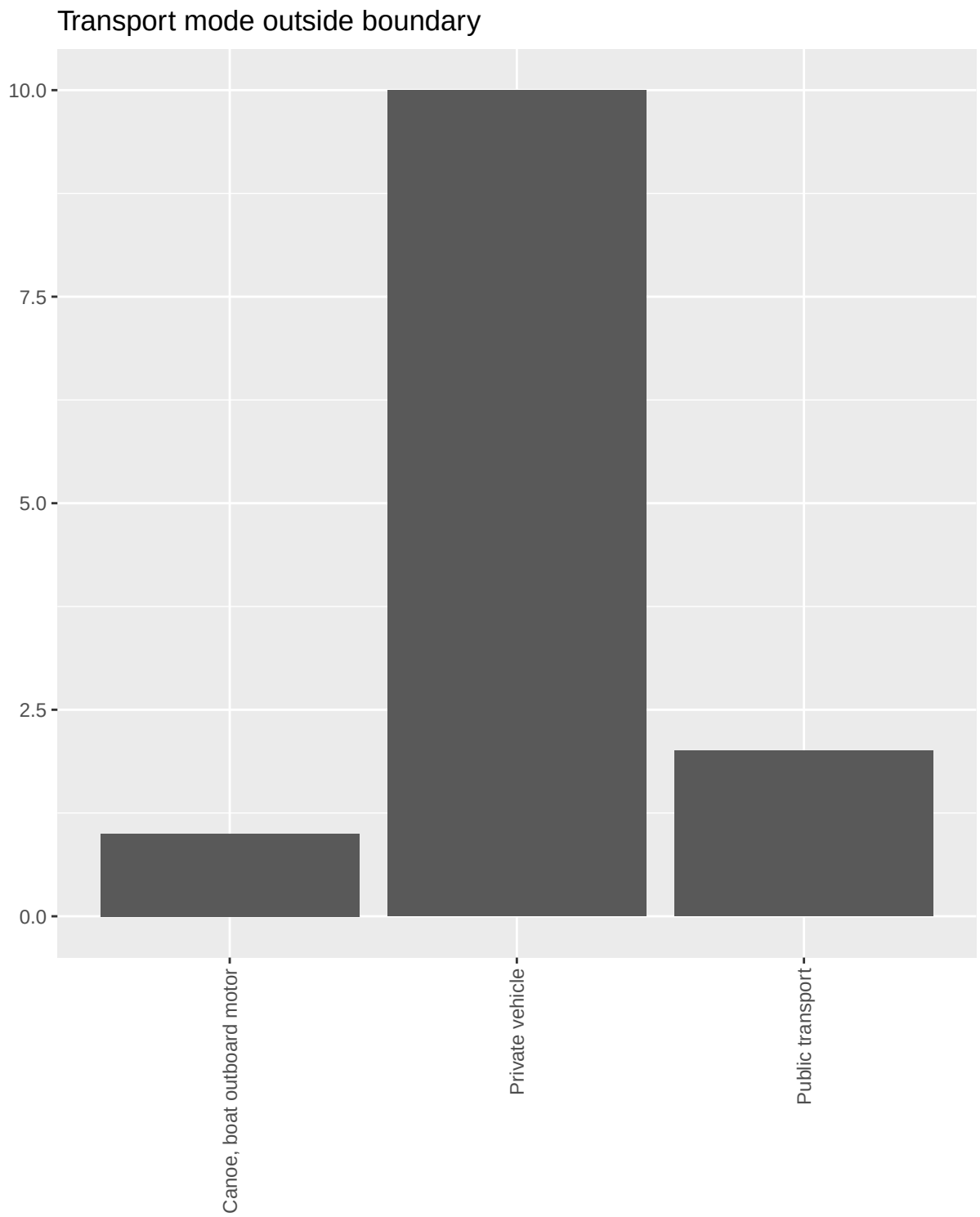


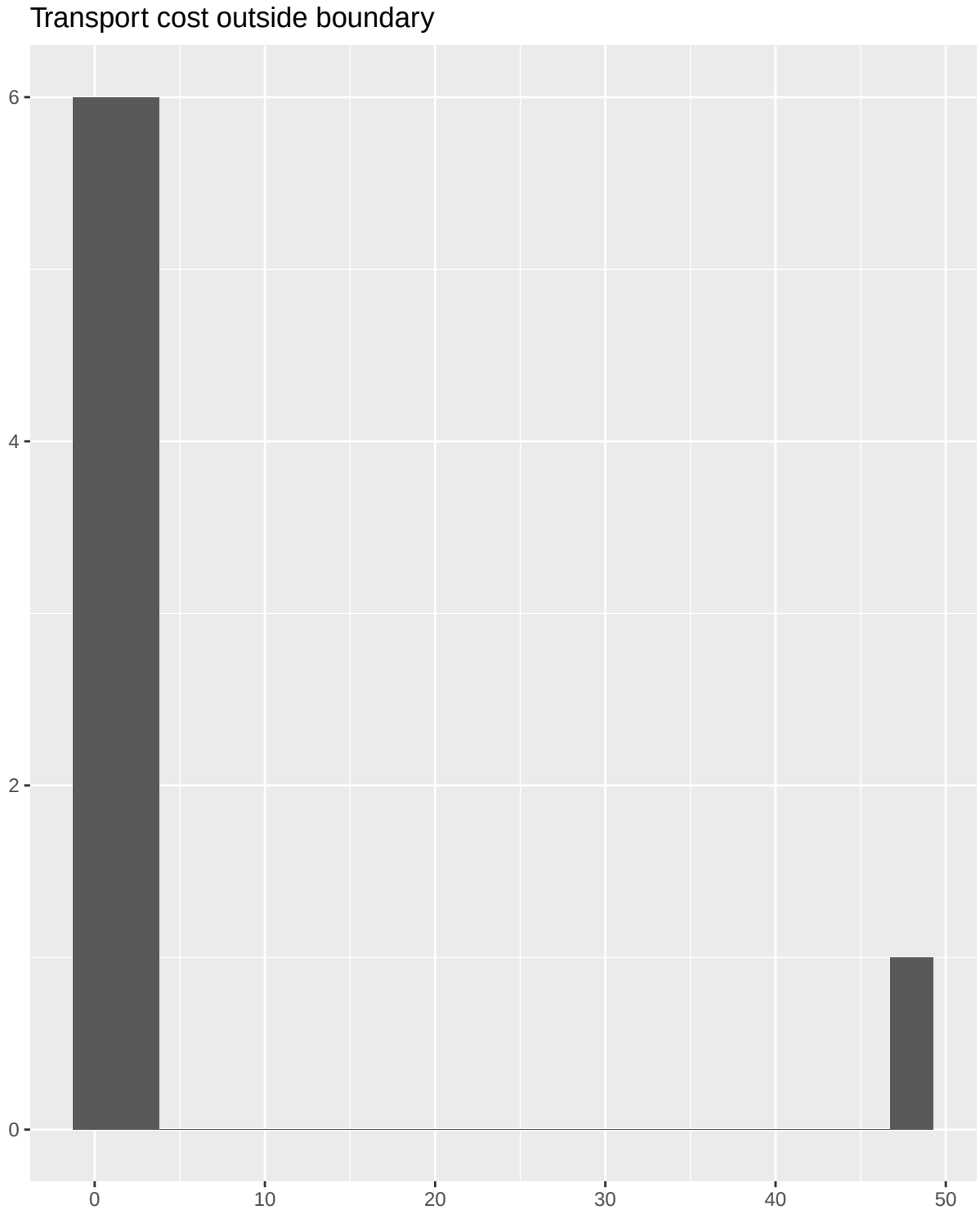

Transport mode outside boundary
40
30
20
10
0
Canoe, boat outboard motor
Canoe, boat paddle
Other mode of transport
Private vehicle
Public transport
Walking


Transport cost outside boundary (zeroes removed; n = 22)
30
20
10
0
0
10
20
30
40

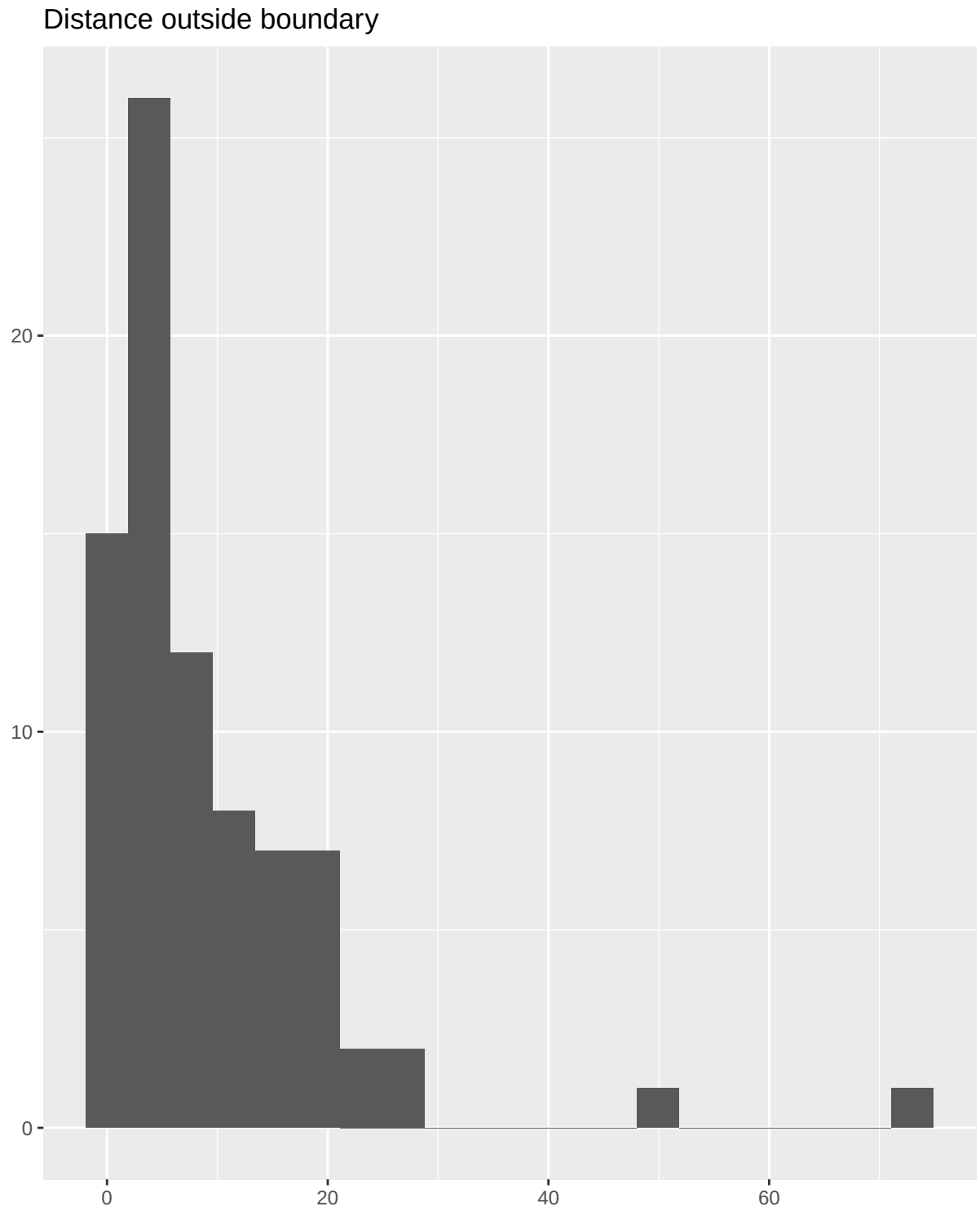
Asset: Nearest Credit Facility

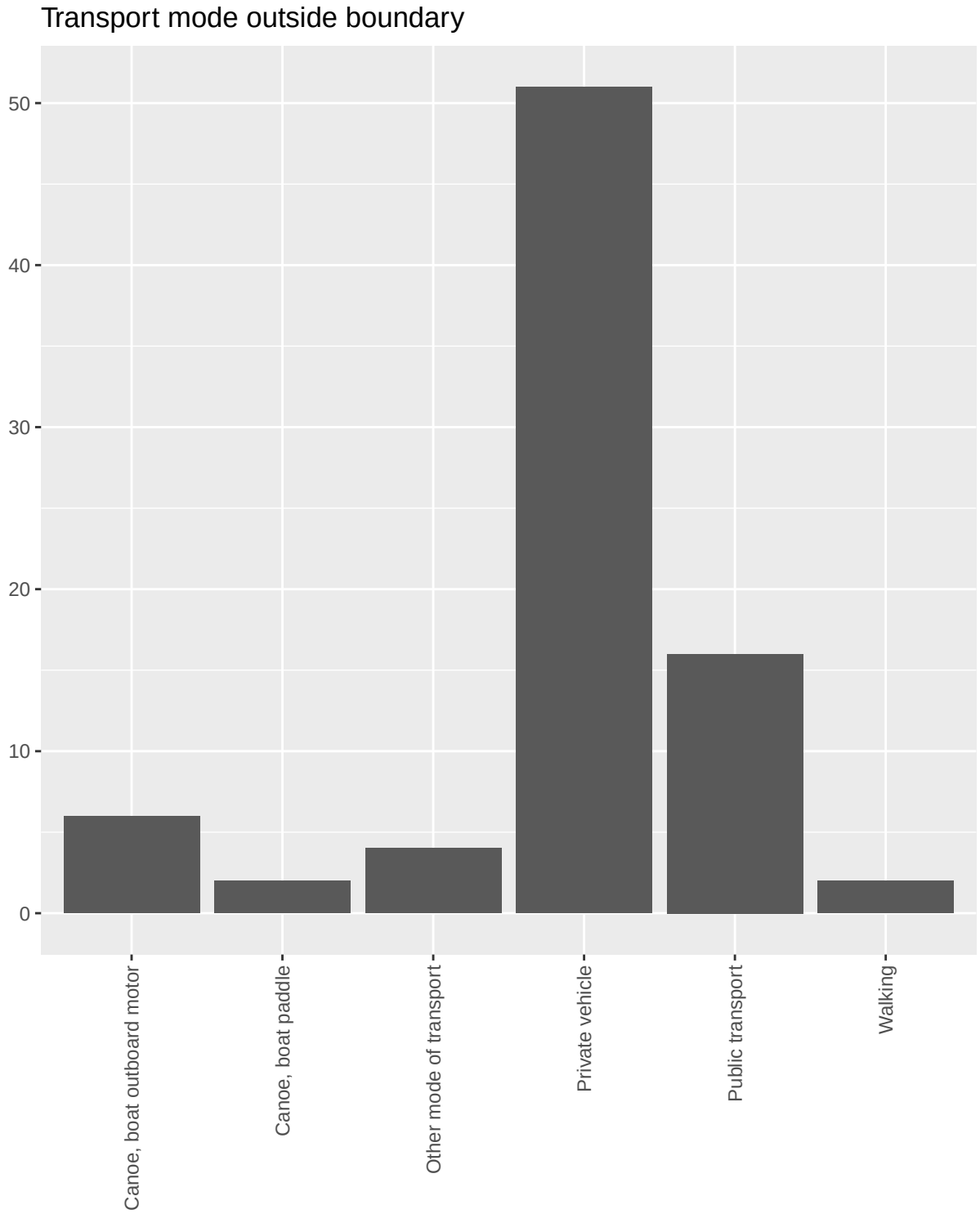


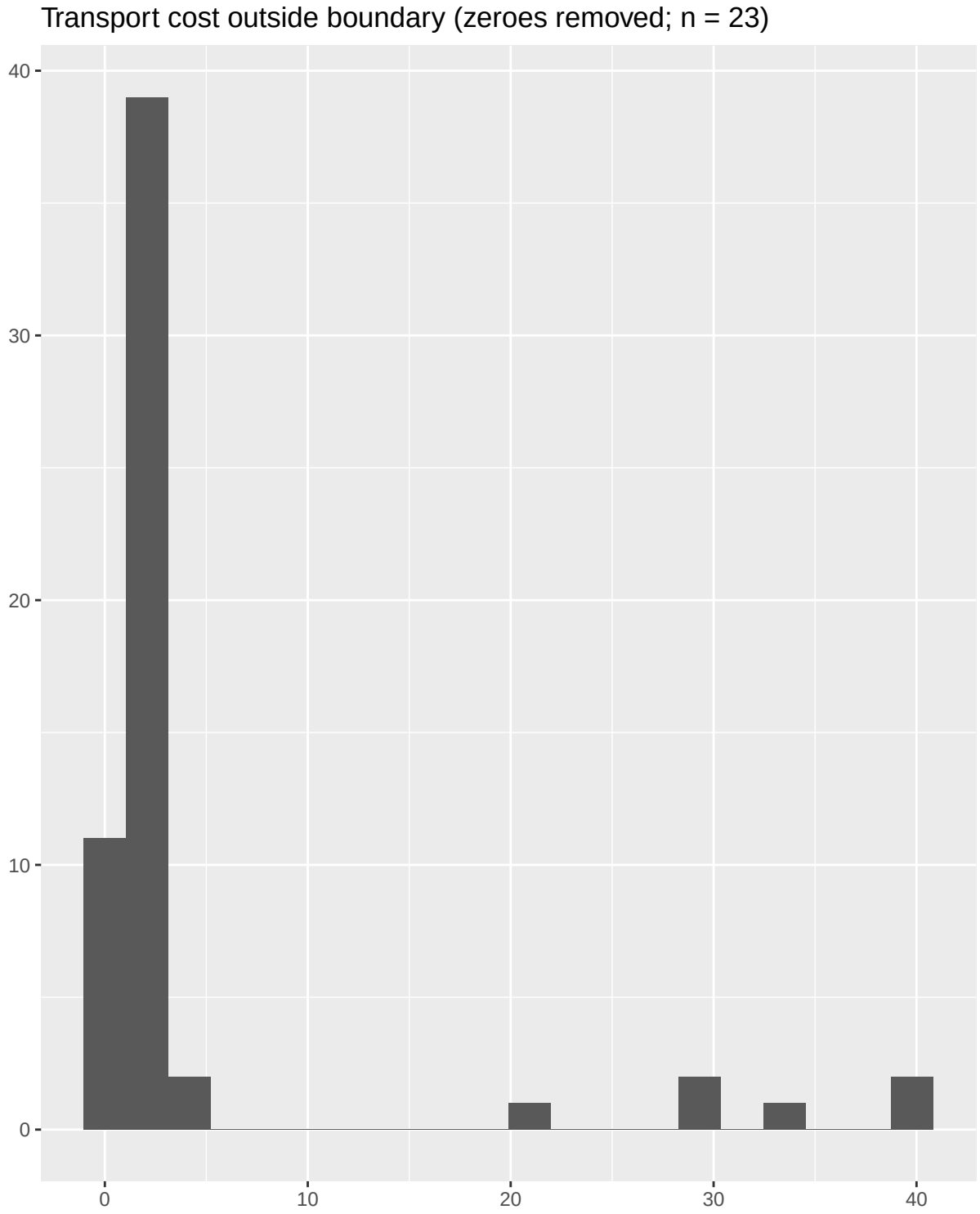

Transport mode outside boundary
10.0
7.5
5.0
2.5
0.0
Canoe, boat outboard motor
Private vehicle
Public transport


Transport cost outside boundary
6
4
2
0
0
10
20
30
40
50

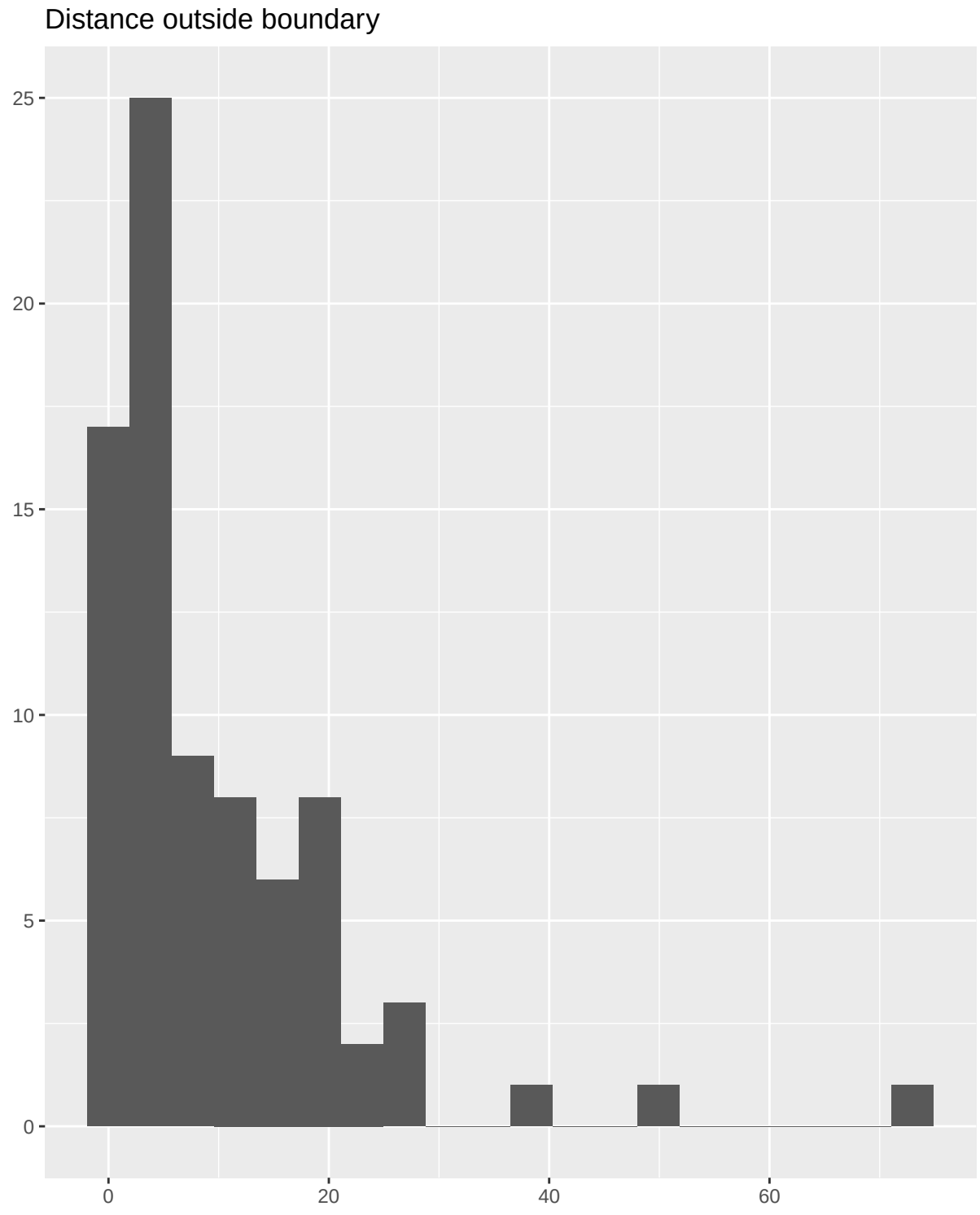
Asset: Nearest Police Station

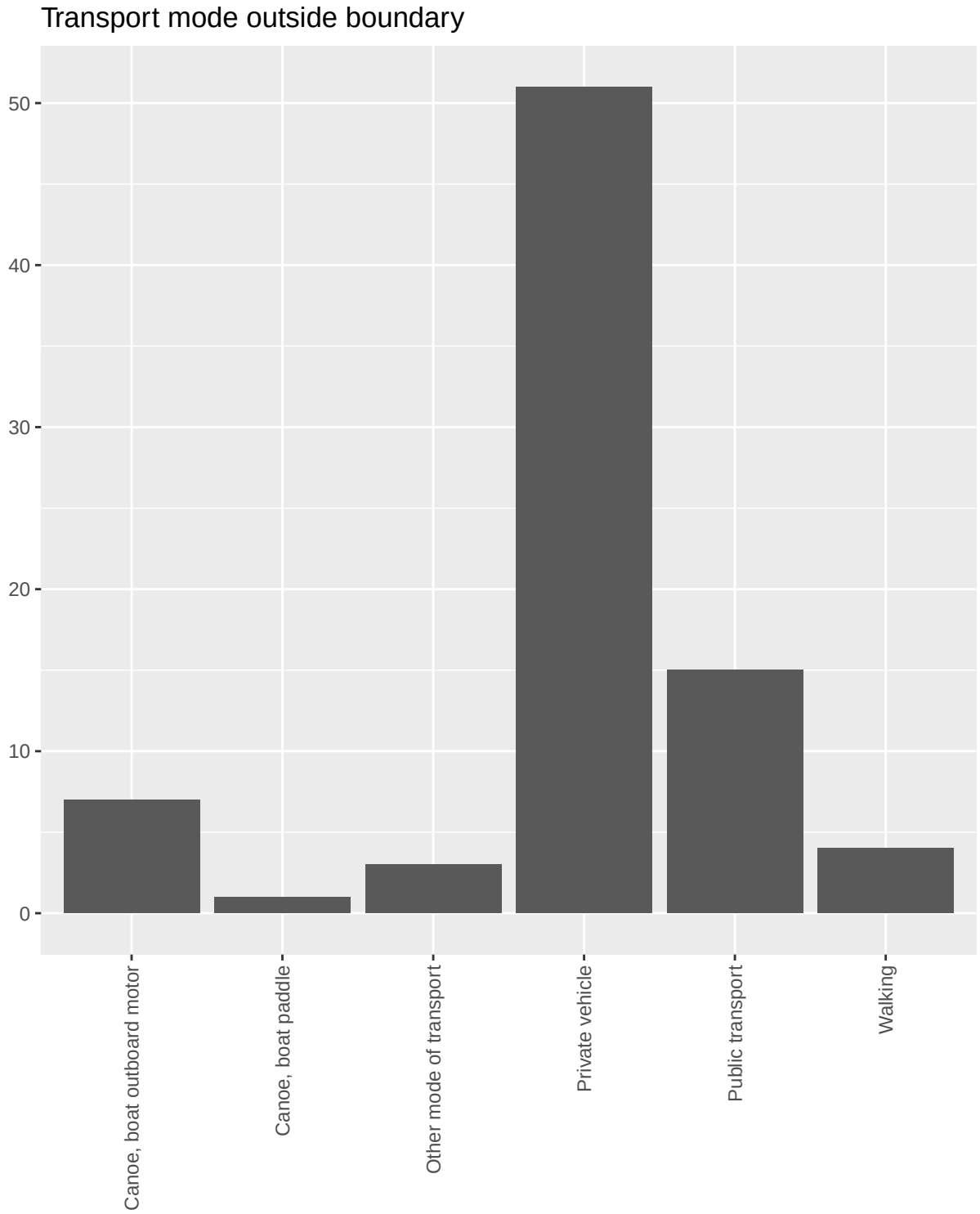


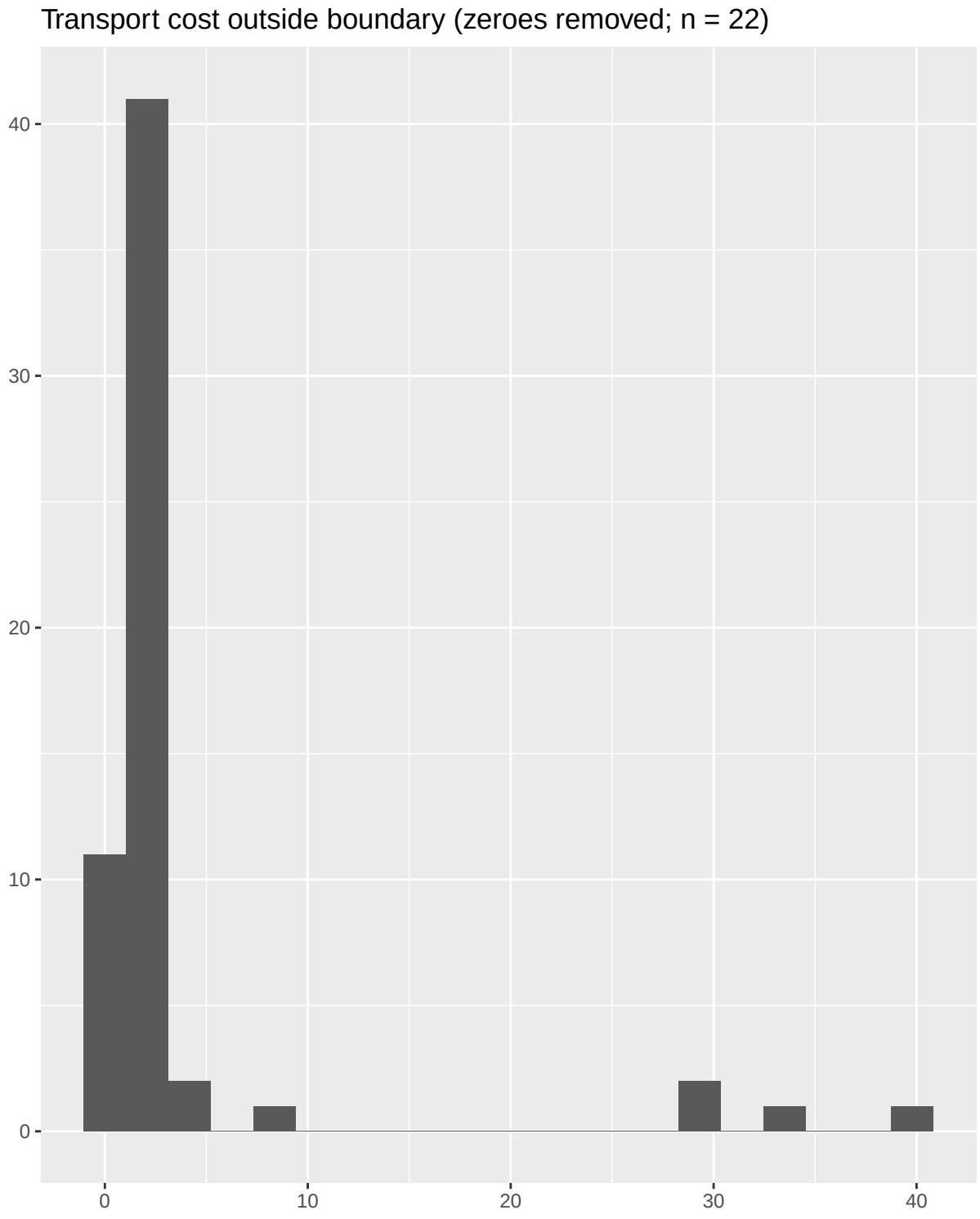

Transport mode outside boundary
50
40
30
20
10
0
Canoe, boat outboard motor
Canoe, boat paddle
Other mode of transport
Private vehicle
Public transport
Walking


Transport cost outside boundary (zeroes removed; n = 23)
40
30
20
10
0
0
10
20
30
40

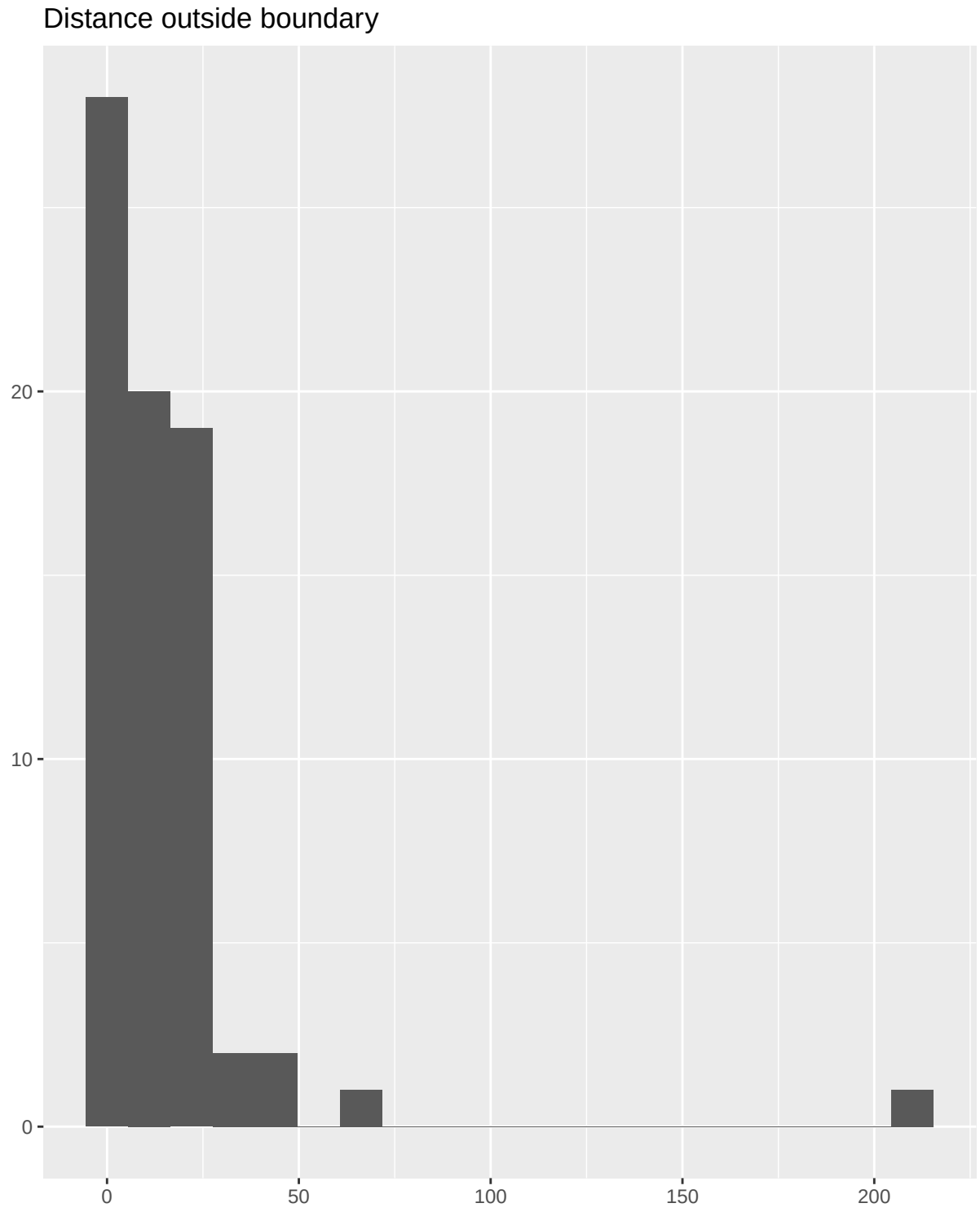
Asset: Nearest Court House

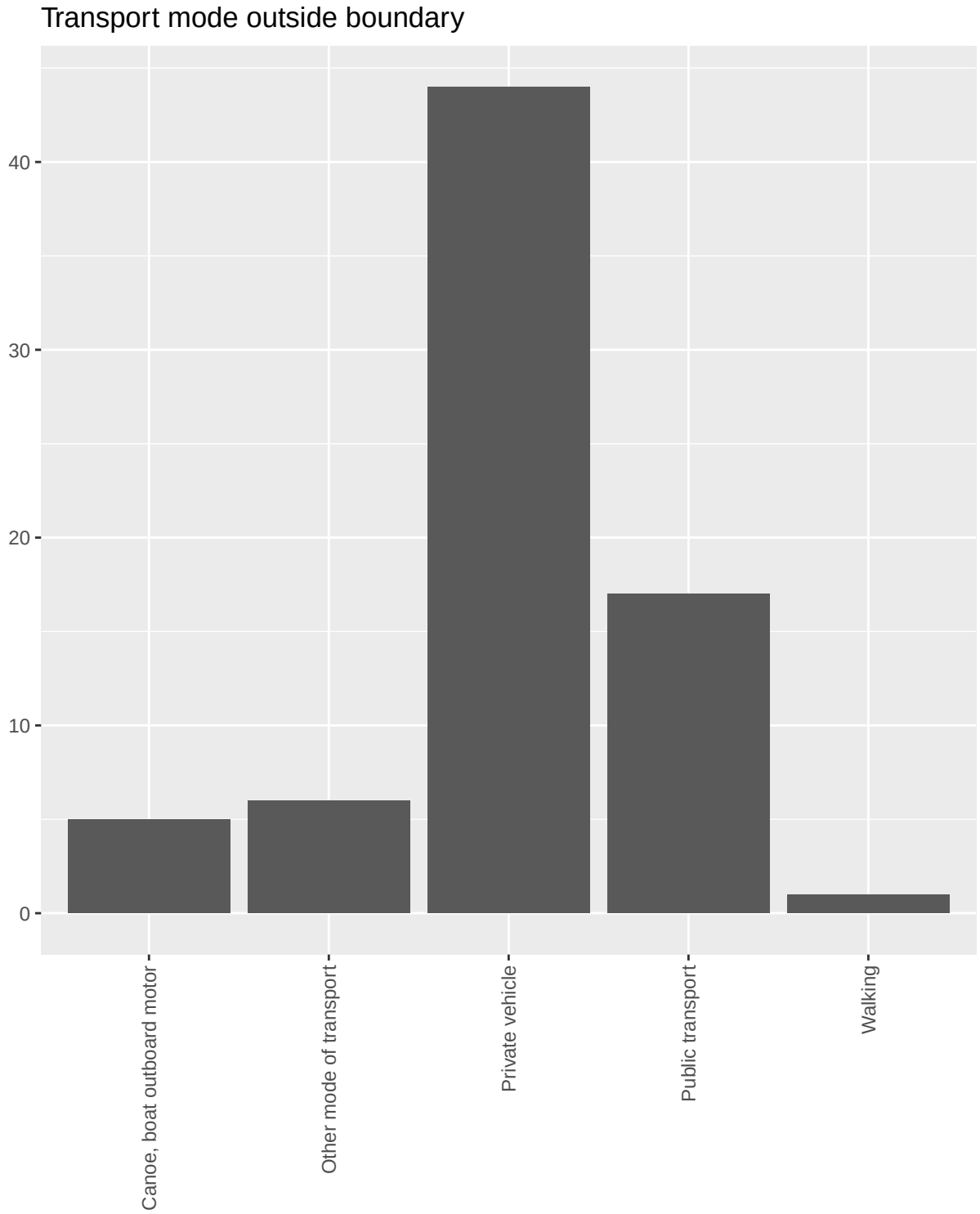


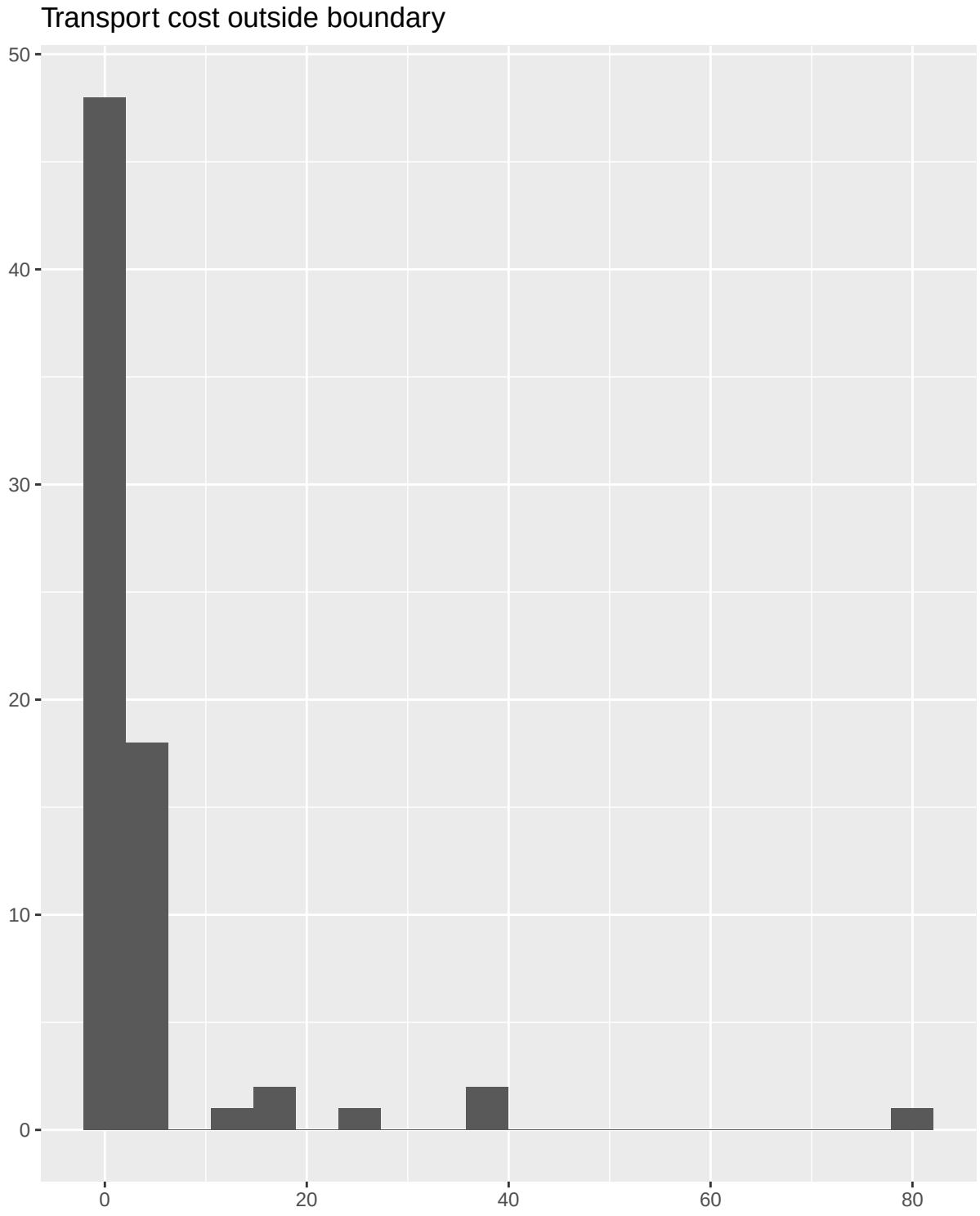

Transport mode outside boundary
50
40
30
20
10
0
Canoe, boat outboard motor
Canoe, boat paddle
Other mode of transport
Private vehicle
Public transport
Walking


Transport cost outside boundary (zeroes removed; n = 22)
40
30
20
10
0
0
10
20
30
40

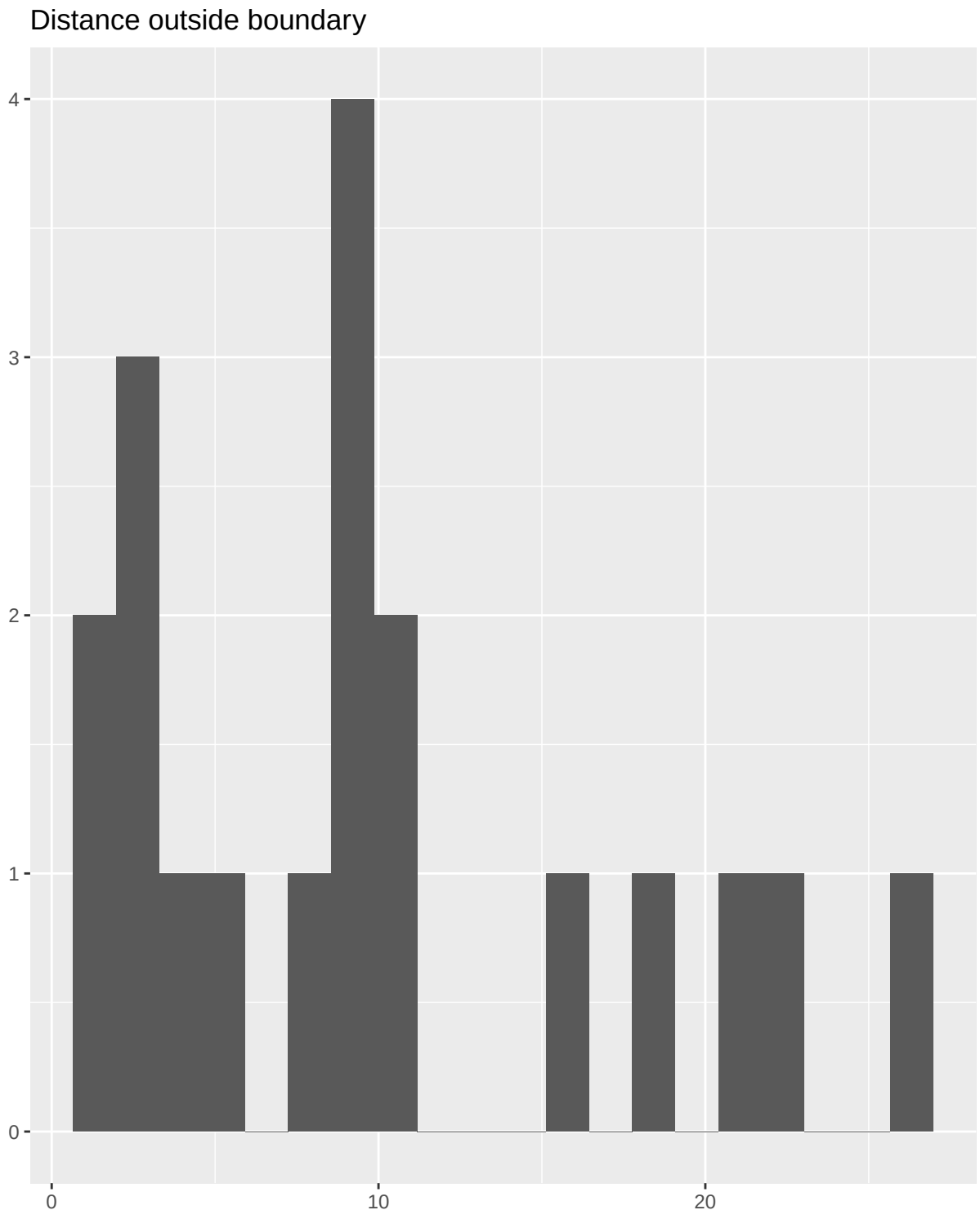
Asset: Airport

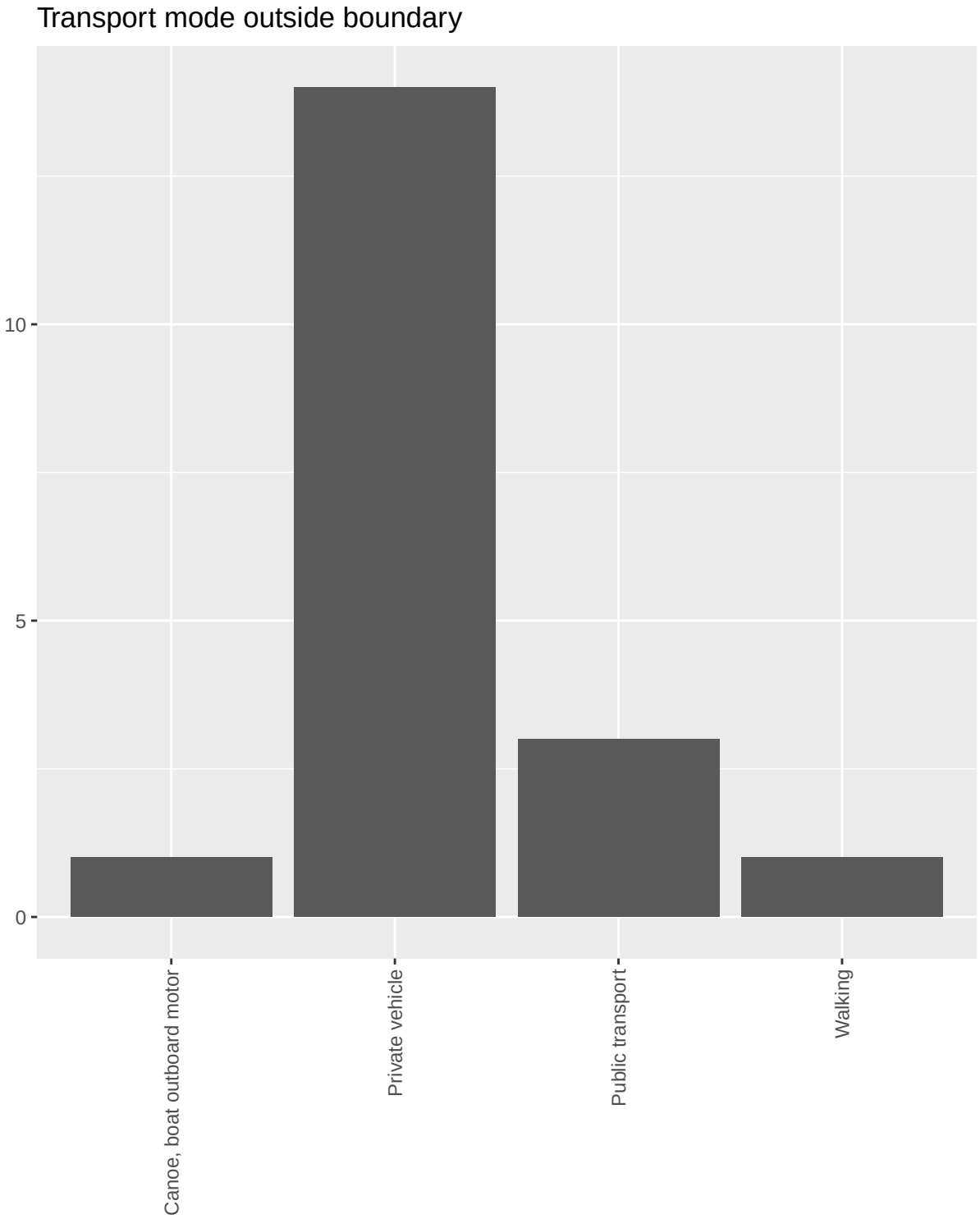


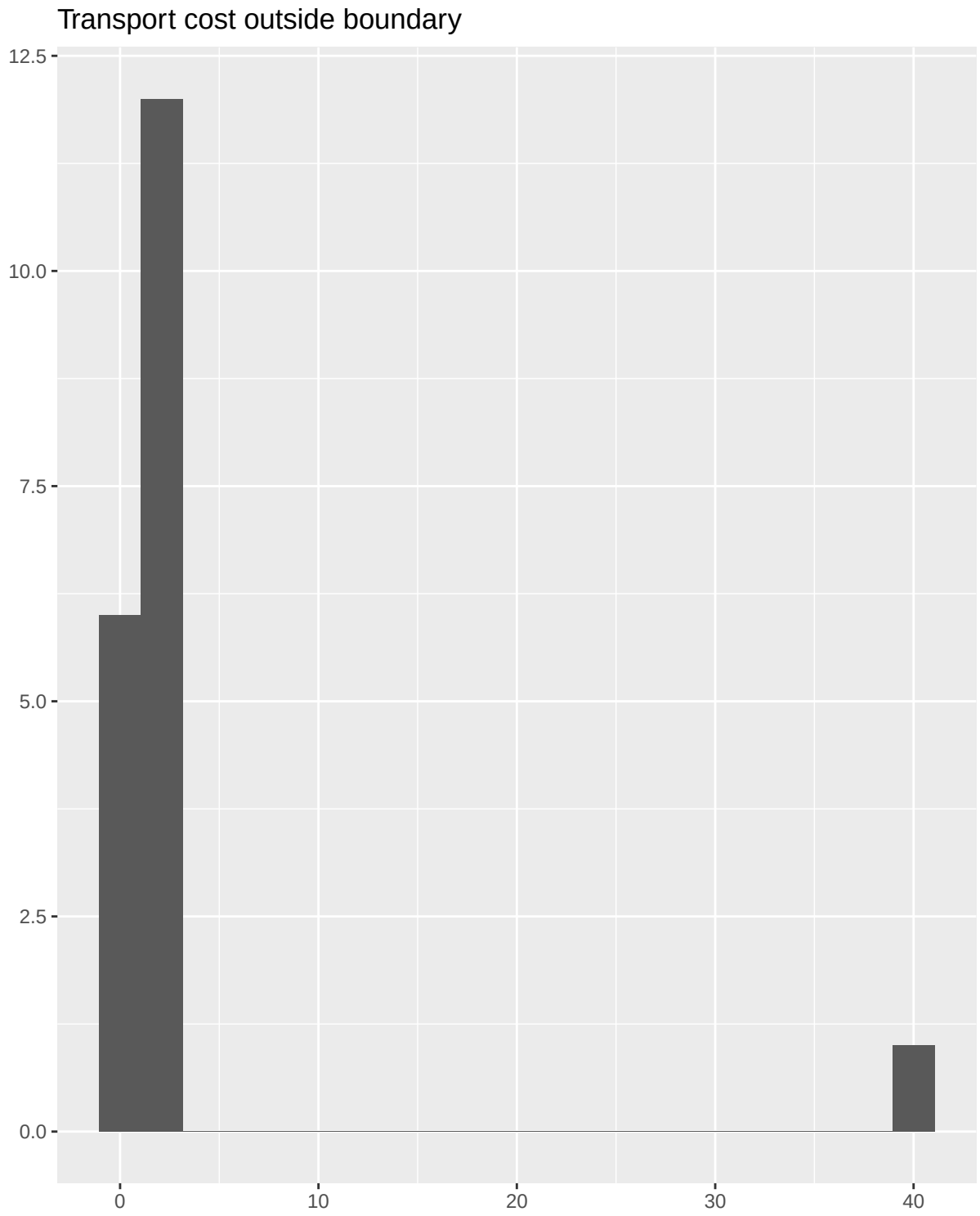

Transport mode outside boundary
40
30
20
10
0
Canoe, boat outboard motor
Other mode of transport
Private vehicle
Public transport
Walking


Transport cost outside boundary
50
40
30
20
10
0
0
20
40
60
80

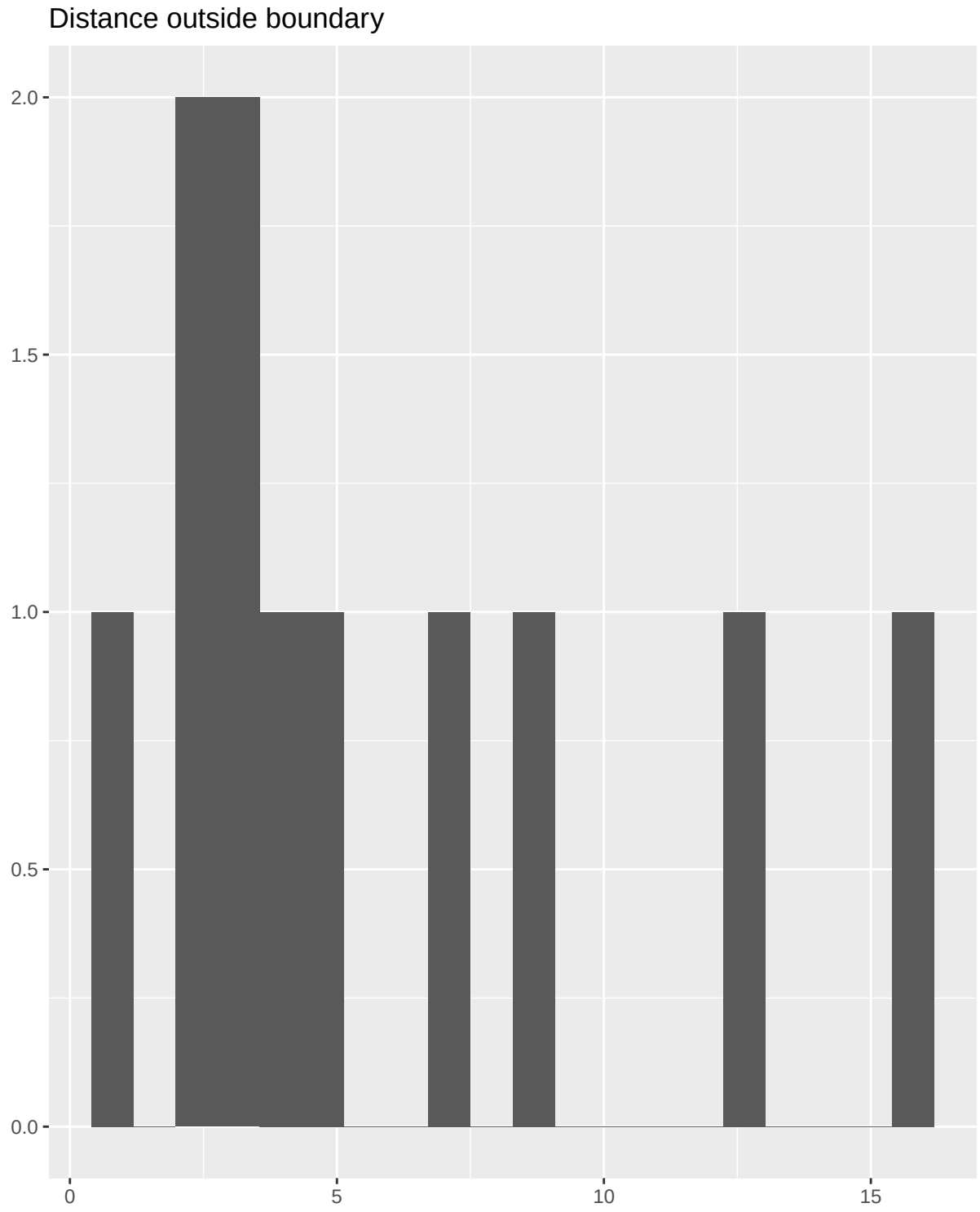
Asset: Nearest Trade Store/Supermarket

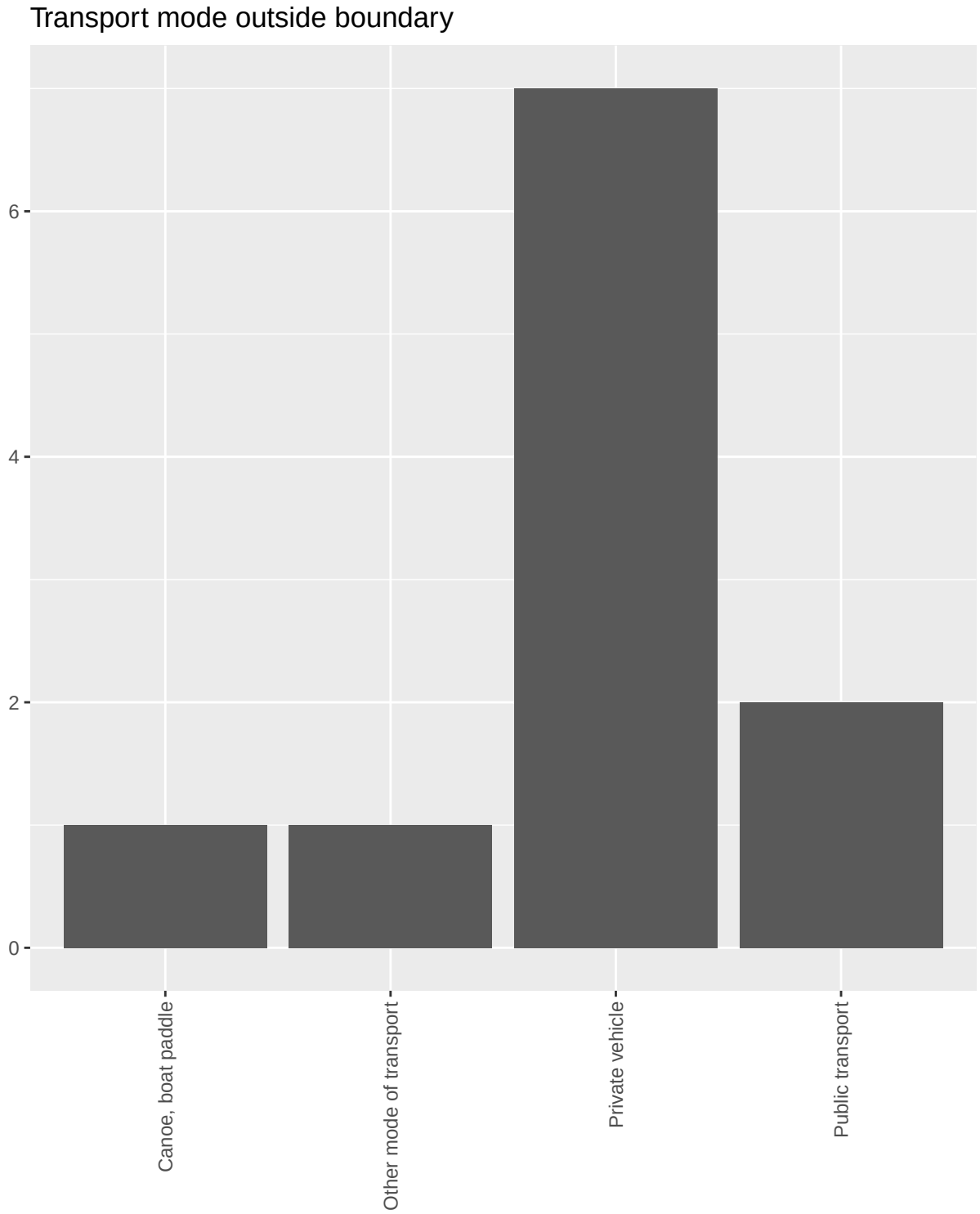


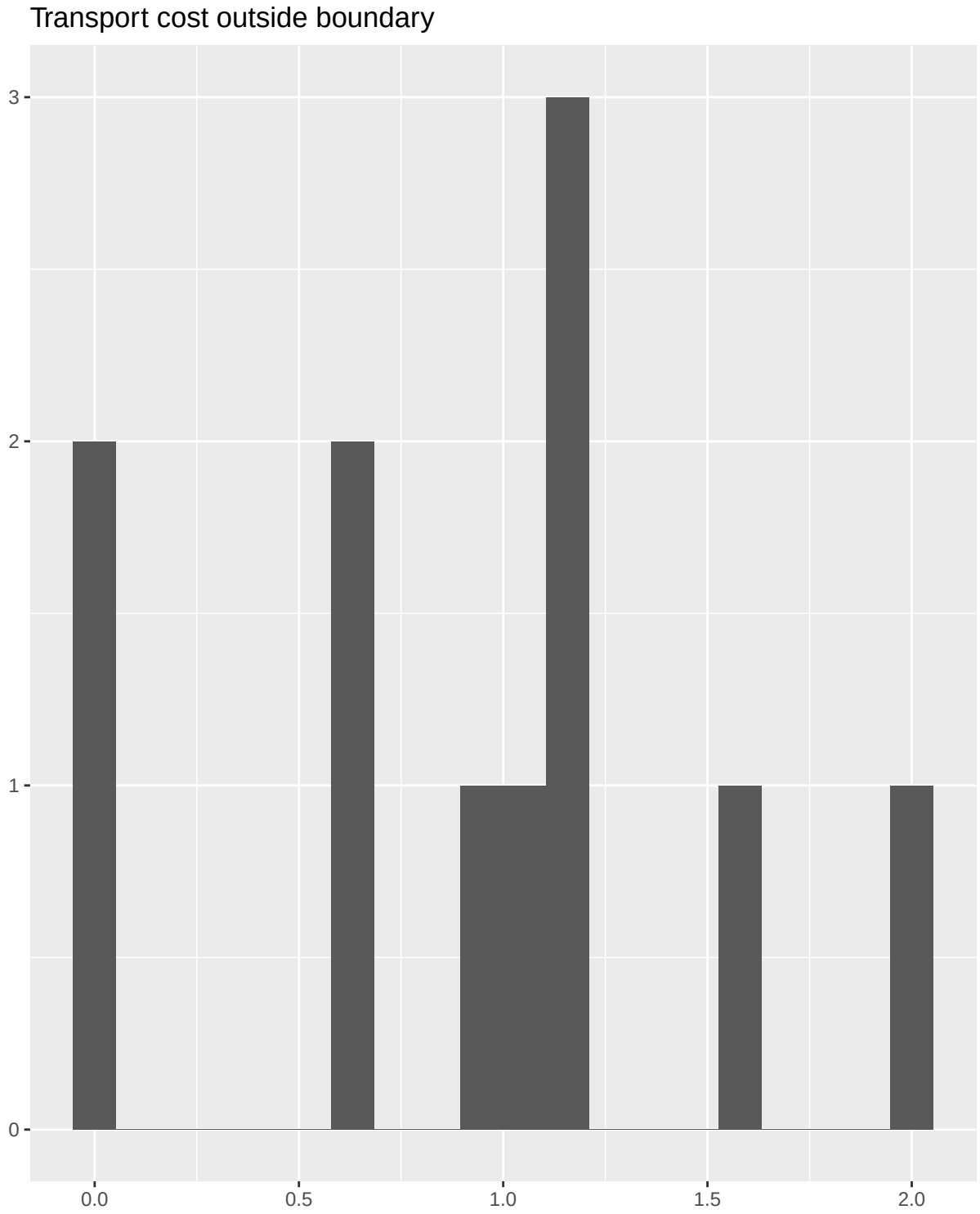

Transport mode outside boundary
10
5
0
Canoe, boat outboard motor
Private vehicle
Public transport
Walking


Transport cost outside boundary
12.5
10.0
7.5
5.0
2.5
0.0
0
10
20
30
40

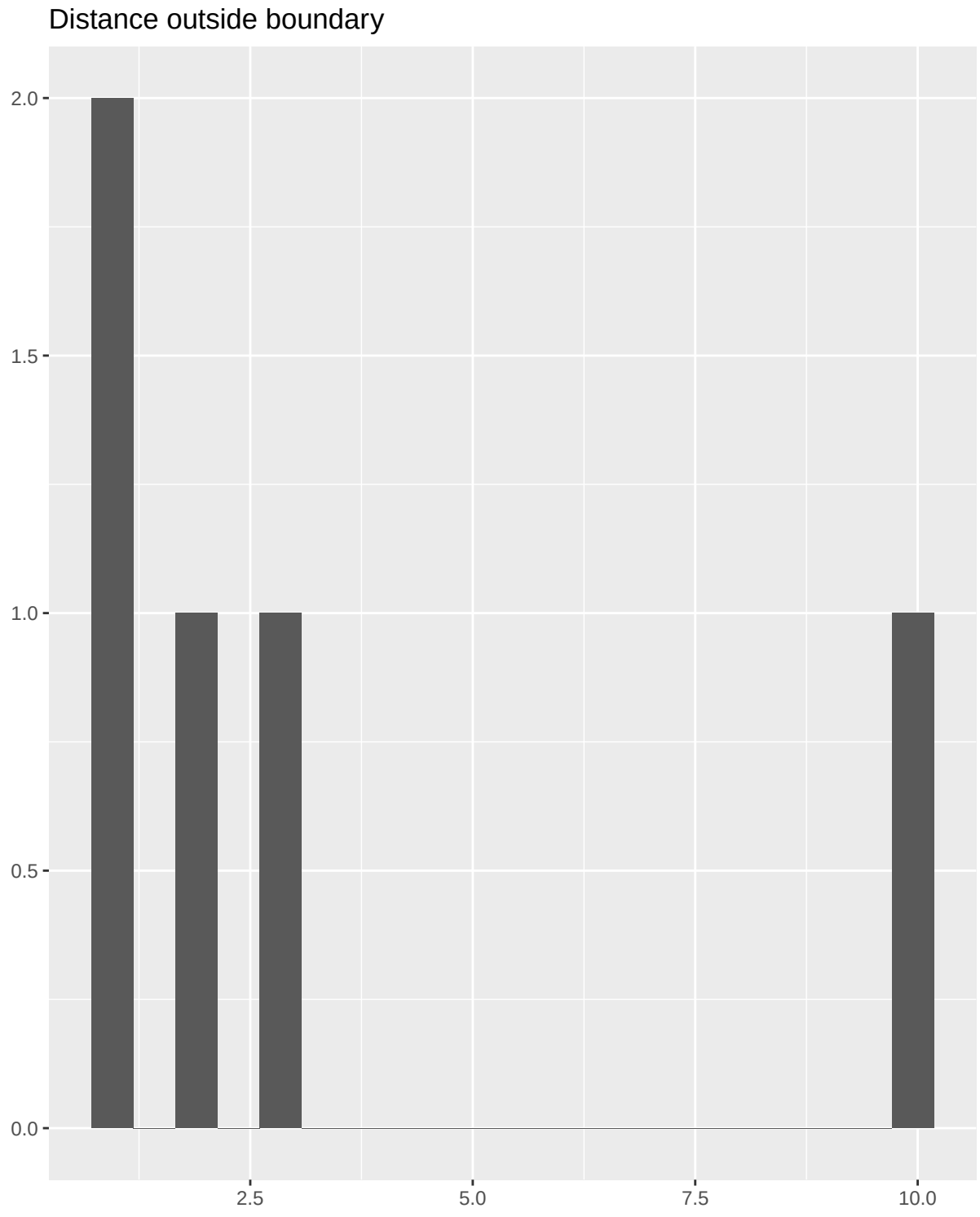
Asset: Nearest fish landing site

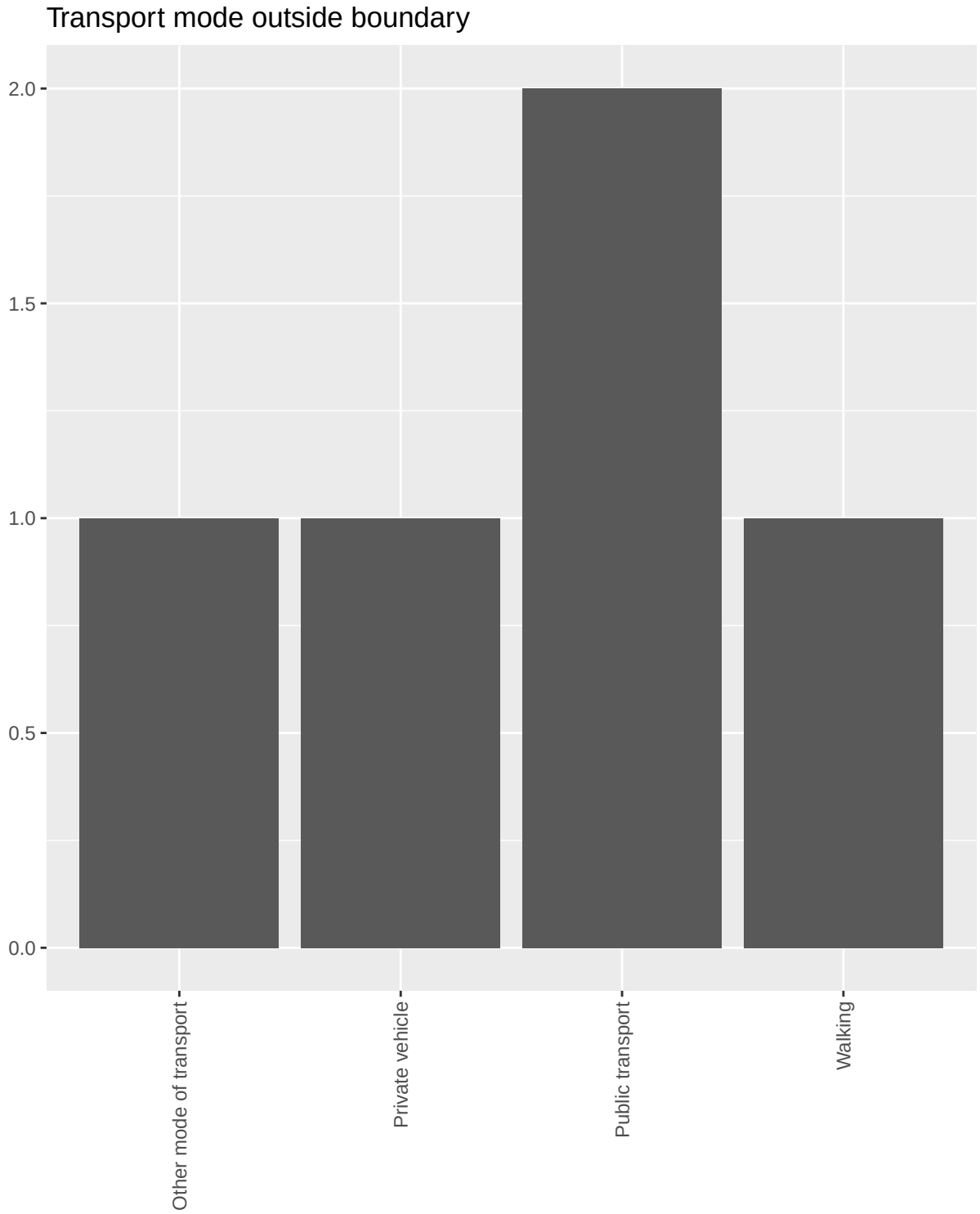


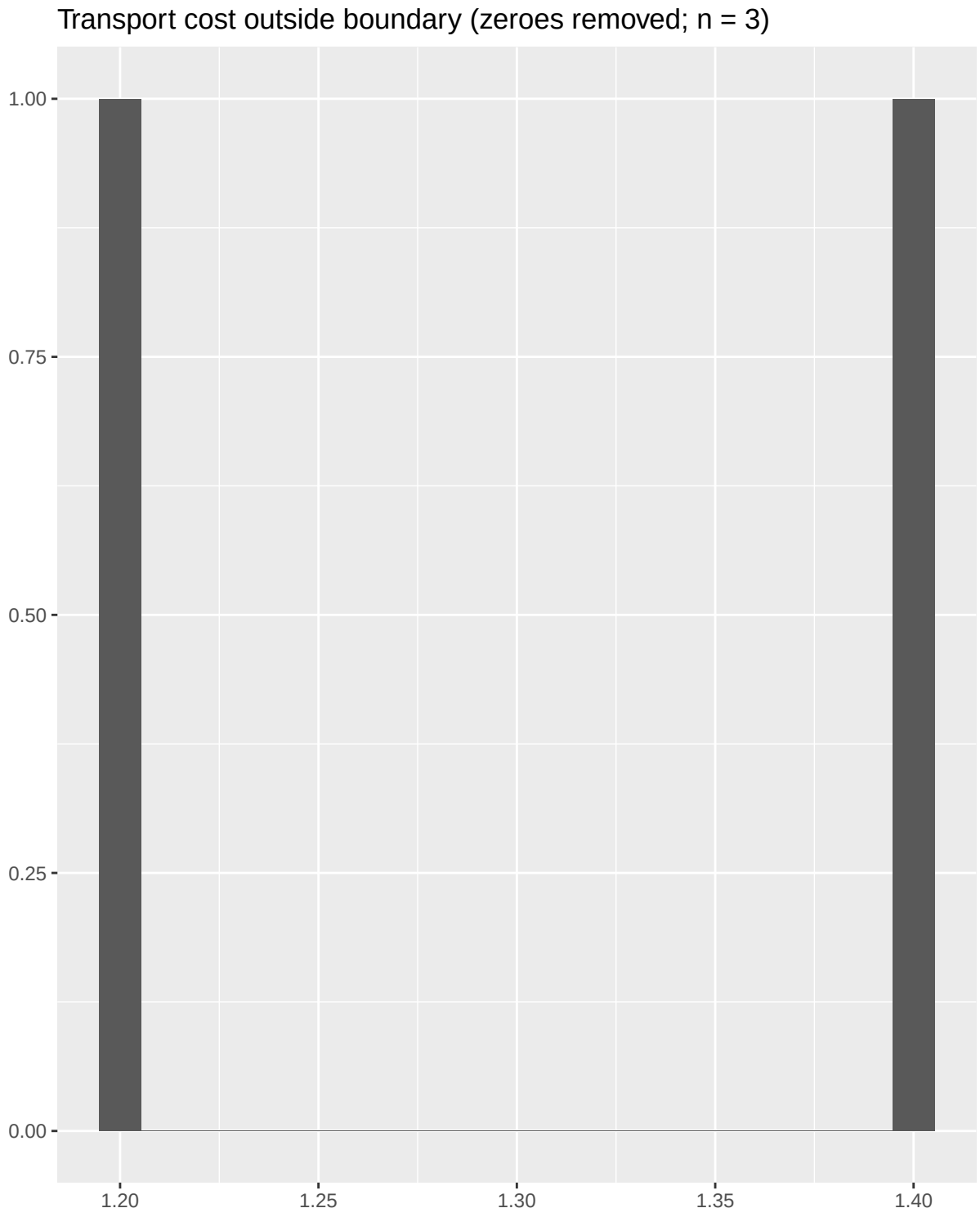

Transport mode outside boundary
6
4
2
0
Canoe, boat paddle
Other mode of transport
Private vehicle
Public transport


Transport cost outside boundary
3
2
1
0
0.0
0.5
1.0
1.5
2.0

Asset: Nearest Church



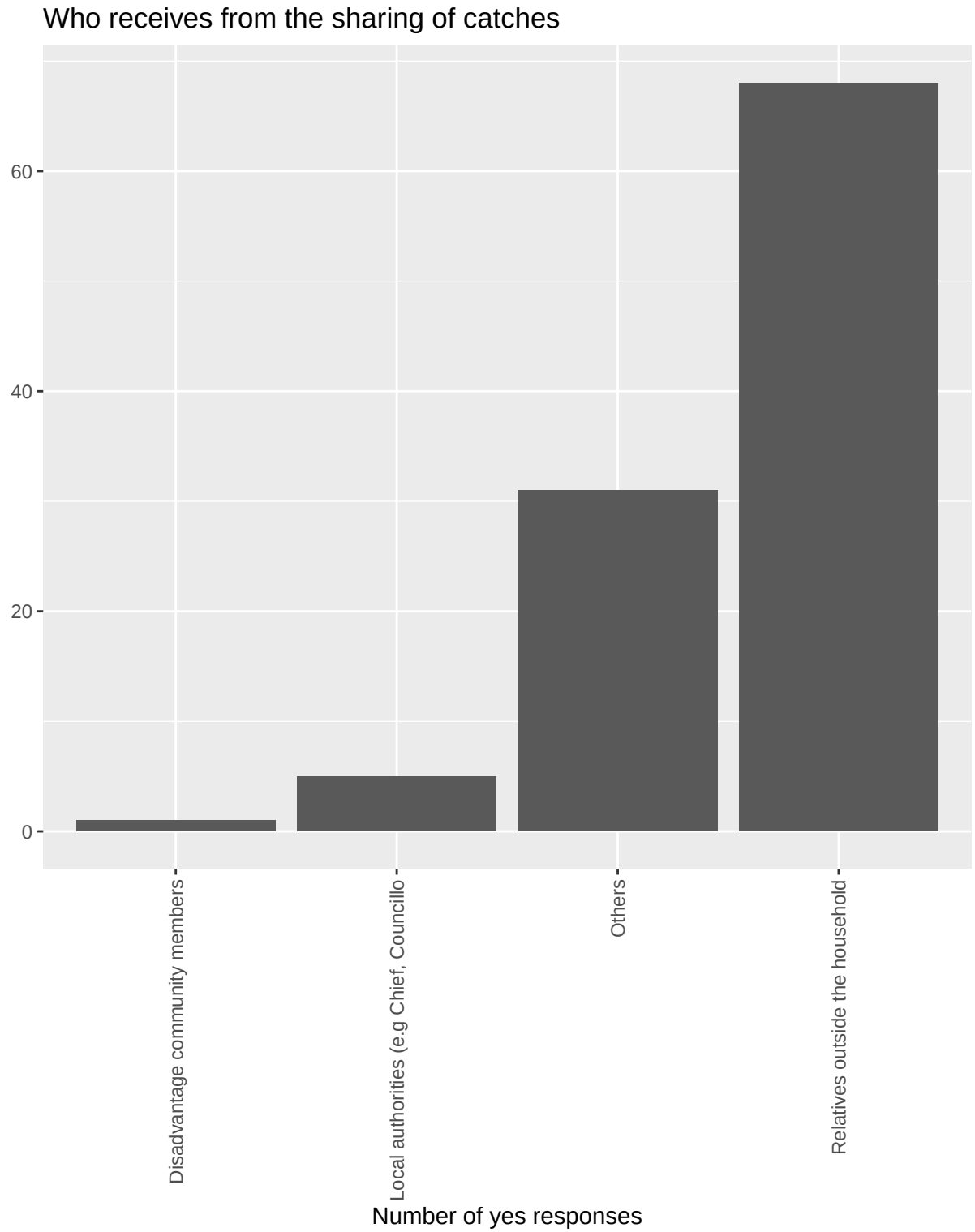

Transport mode outside boundary
2.0
1.5
1.0
0.5
0.0
Other mode of transport
Private vehicle
Public transport
Walking

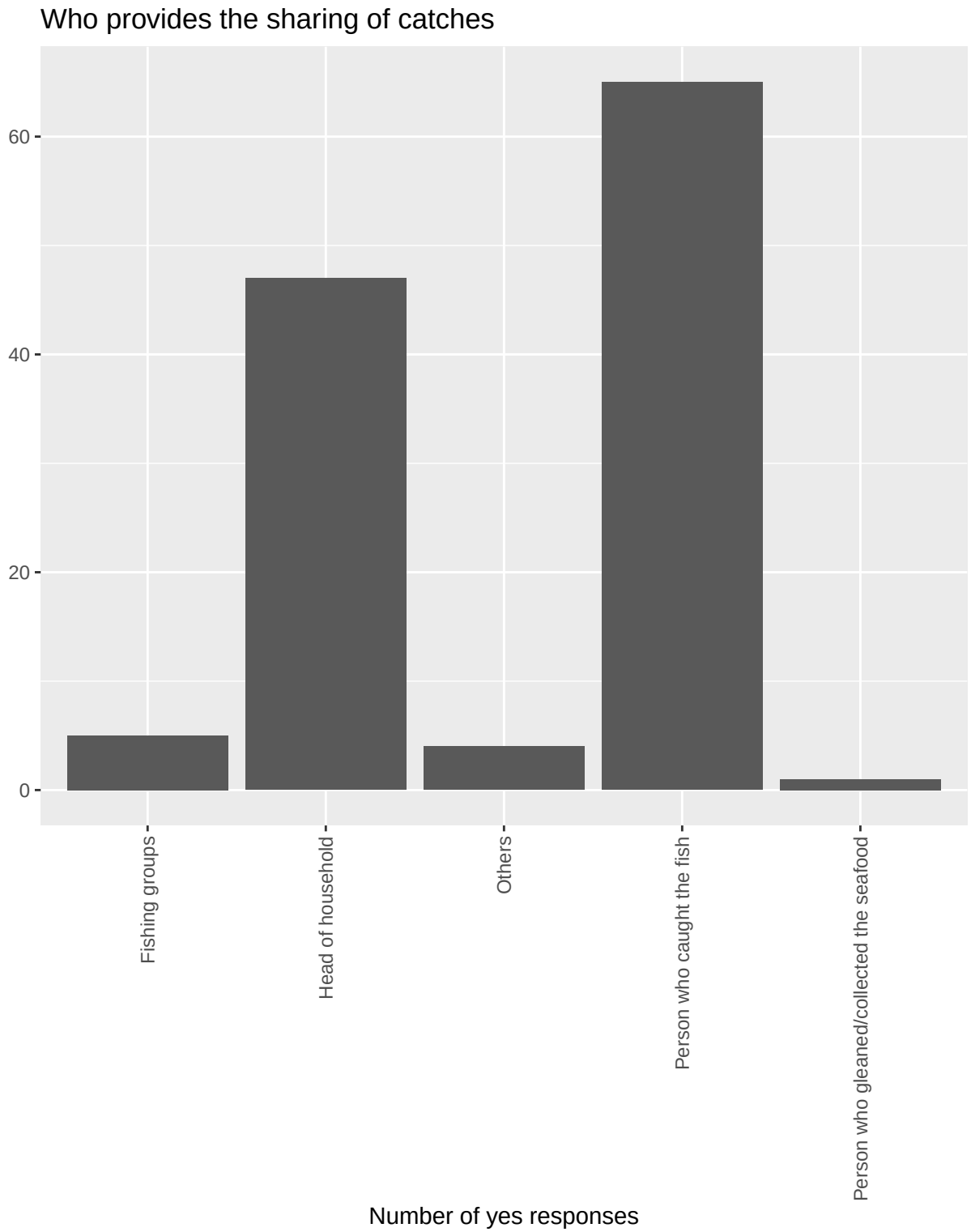

Transport cost outside boundary (zeroes removed; n = 3)
1.00
0.75
0.50
0.25
0.00
1.20
1.25
1.30
1.35
1.40

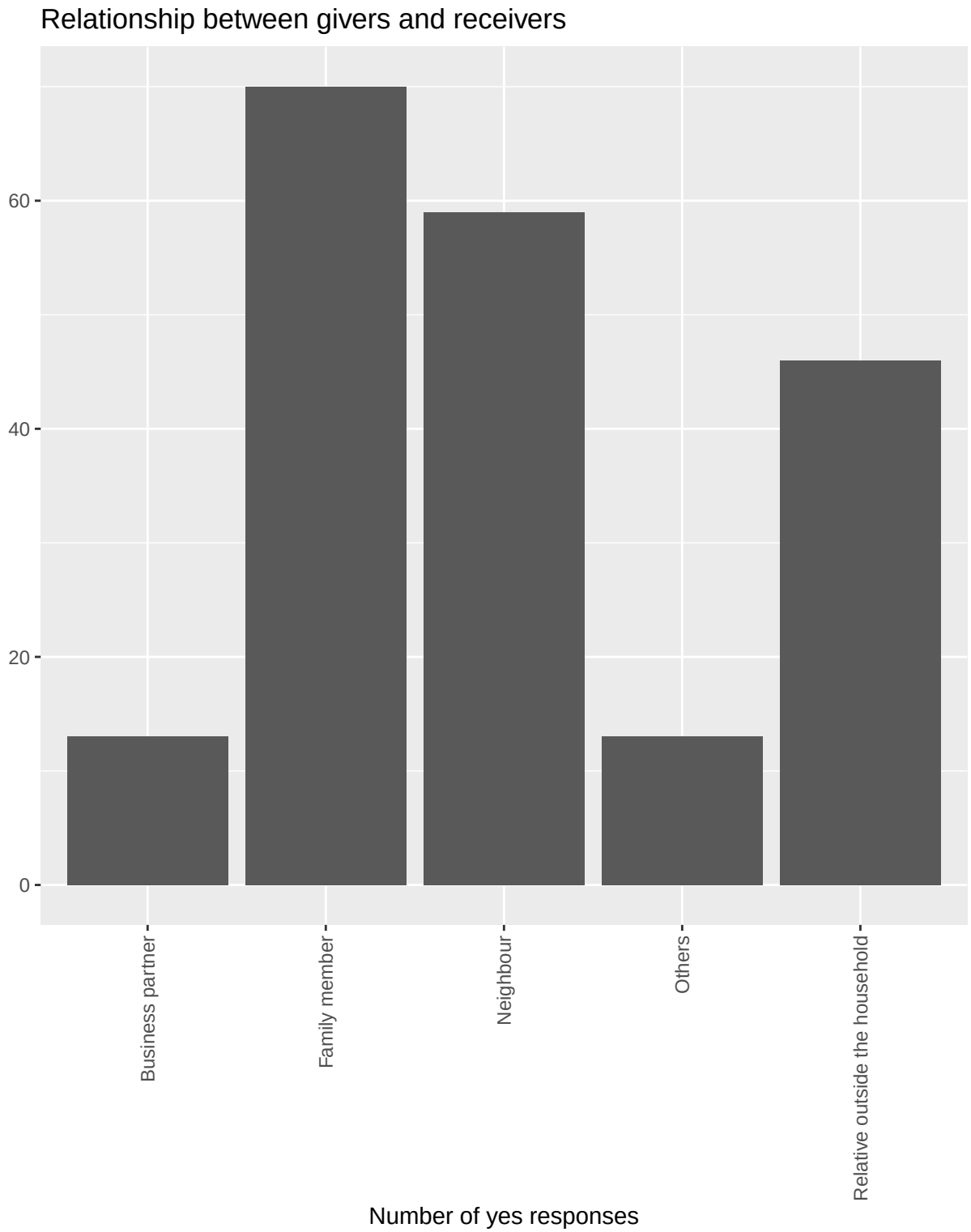
Share Roster Data: List of events

```
## # A tibble: 3 x 1
##   share_roster__id
##   <chr>
## 1 Finfish
## 2 Other non-finfish seafood (shellfish, sea worm, etc.)
## 3 Non-fish foods
```

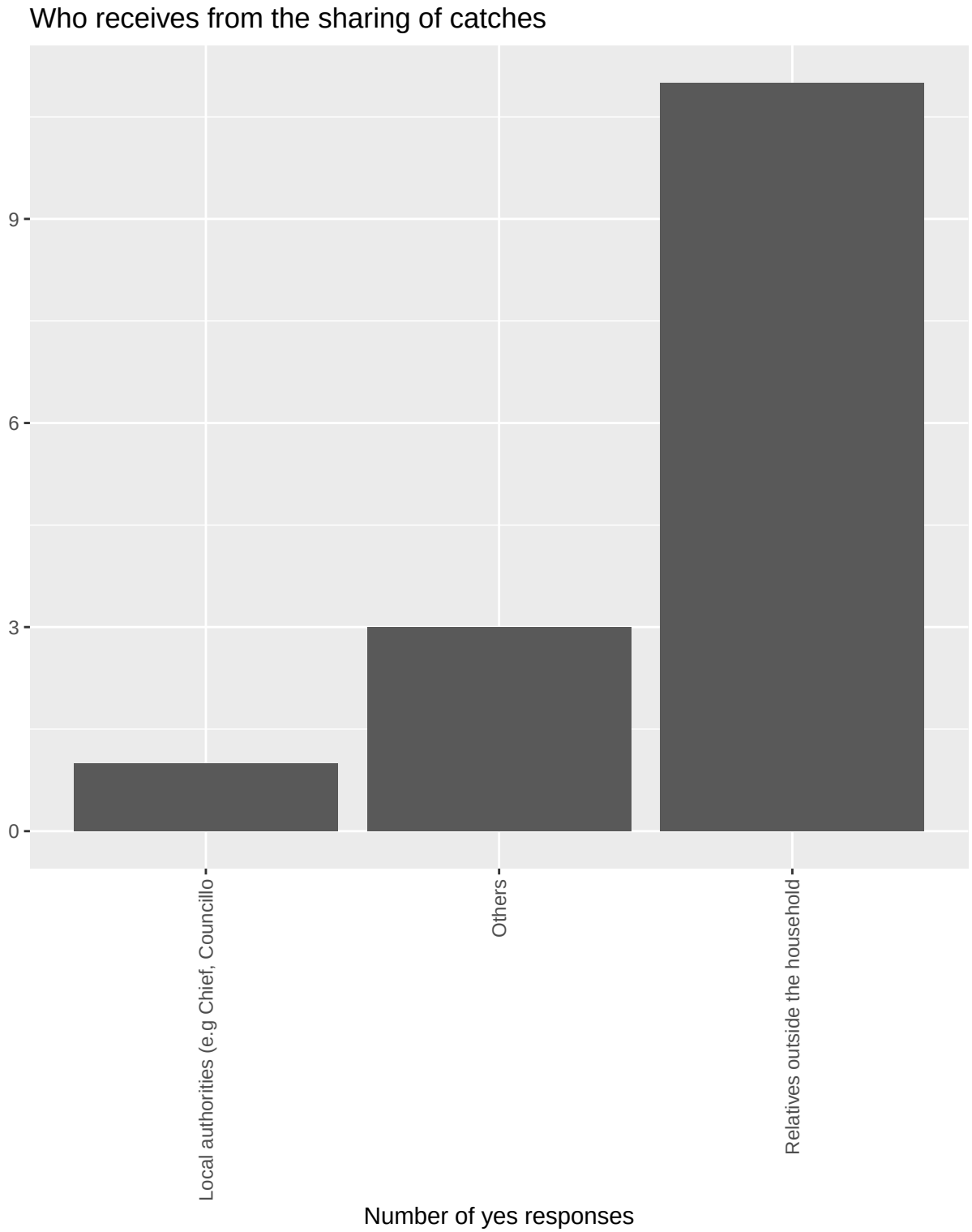
Asset: Finfish

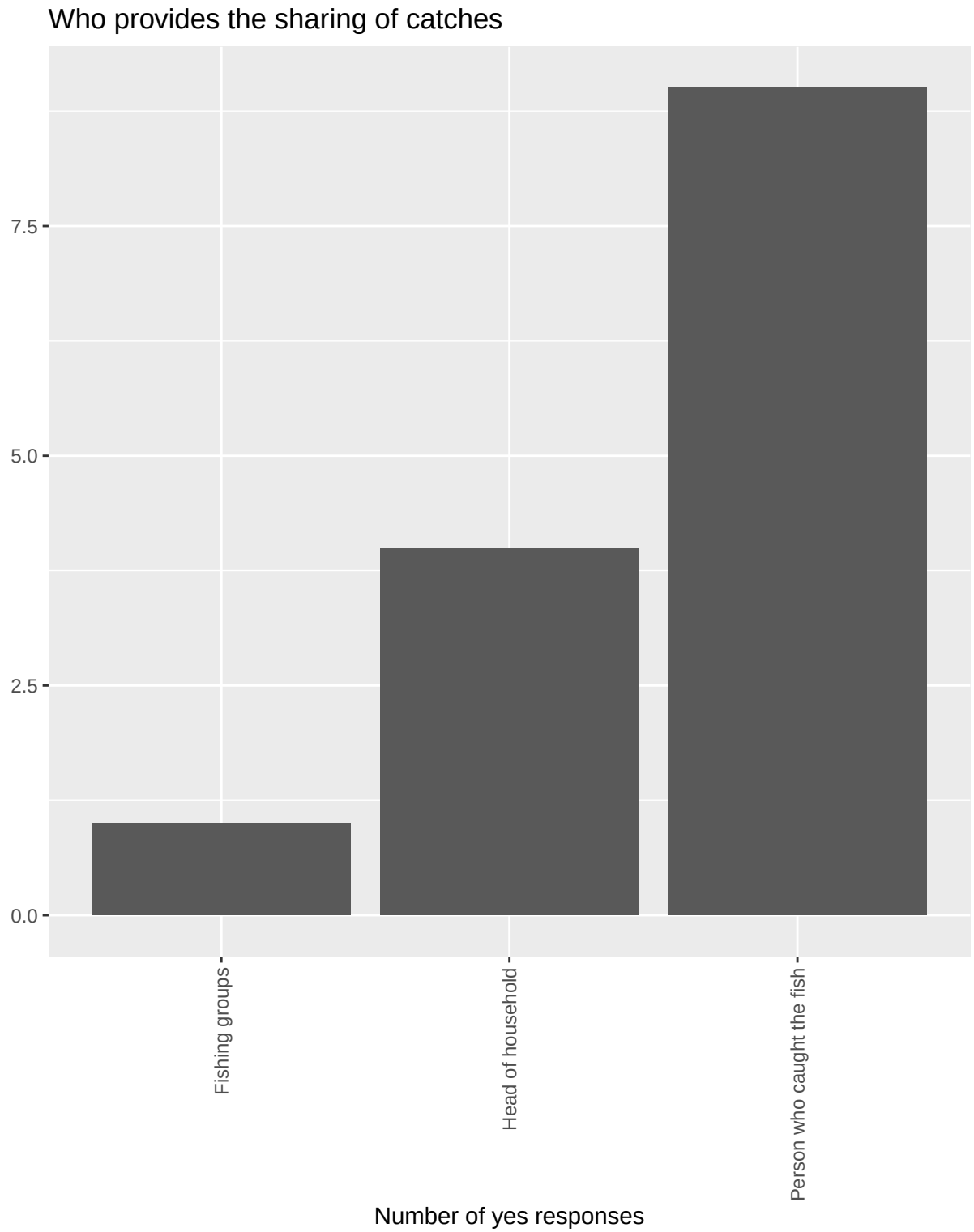


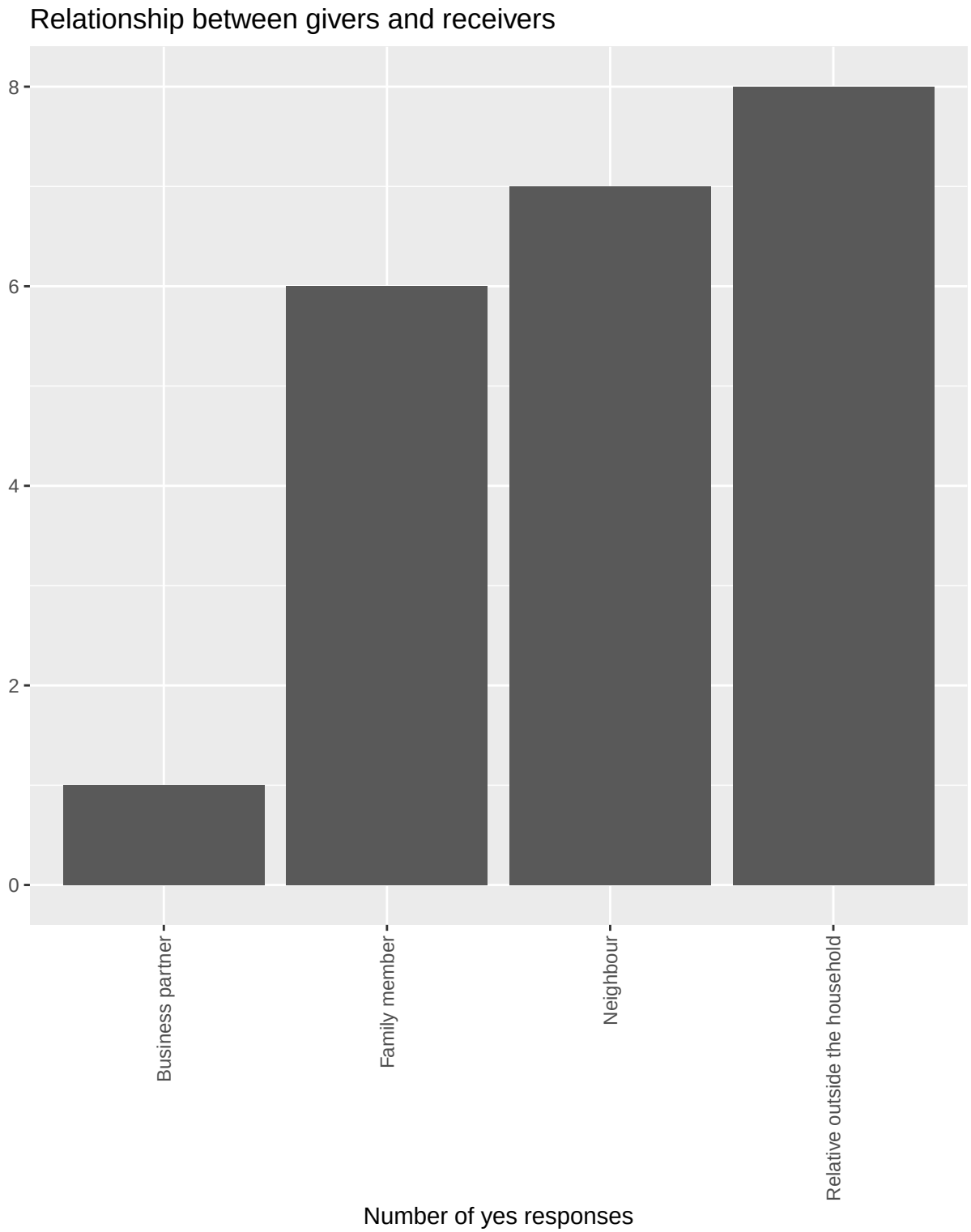

Who provides the sharing of catches
60
40
20
0
Fishing groups
Head of household
Others
Person who caught the fish
Person who gleaned/collected the seafood
Number of yes responses


Relationship between givers and receivers
60
40
20
0
Business partner
Family member
Neighbour
Others
Relative outside the household
Number of yes responses

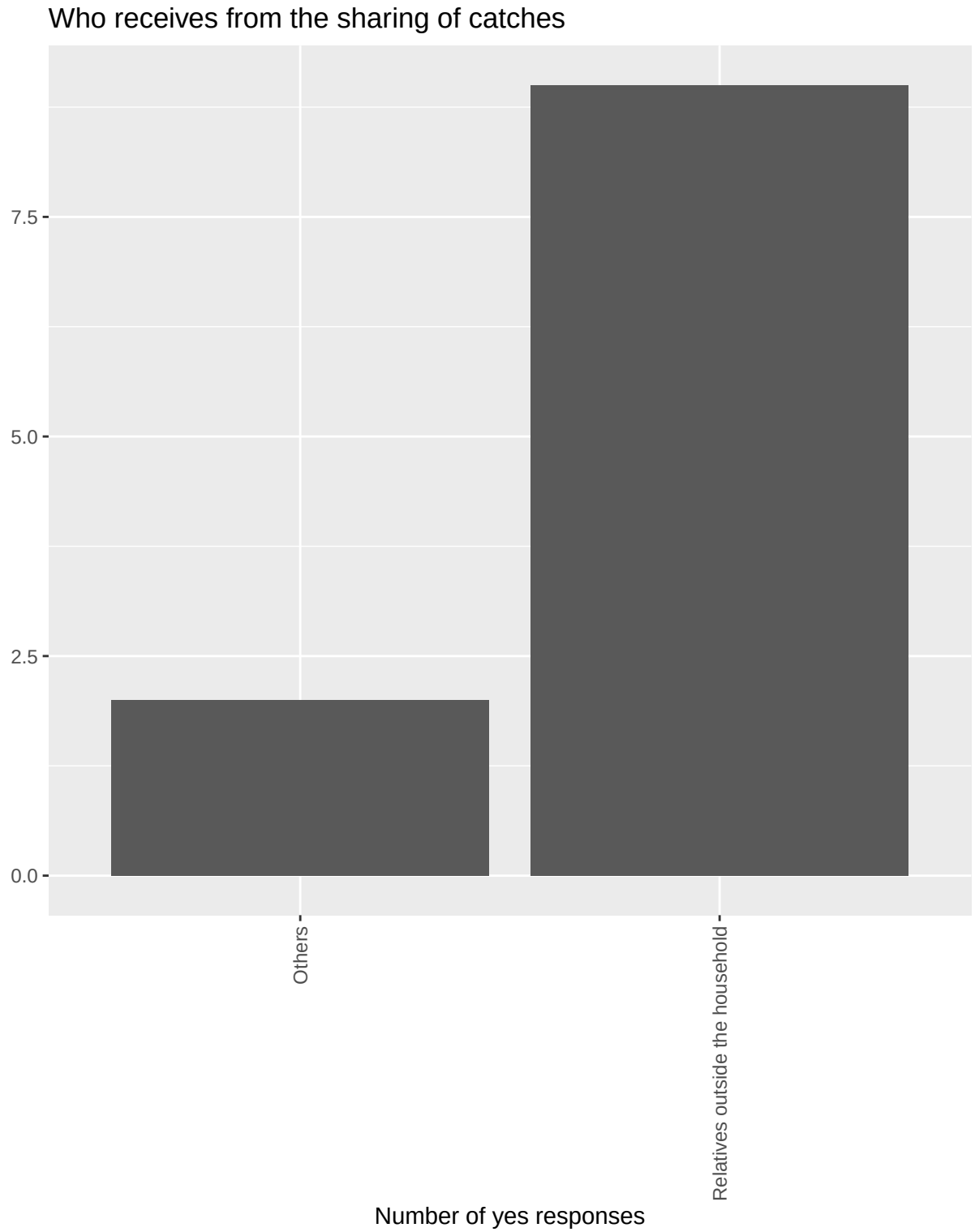
Asset: Other non-finfish seafood (shellfish, sea worm, etc.)

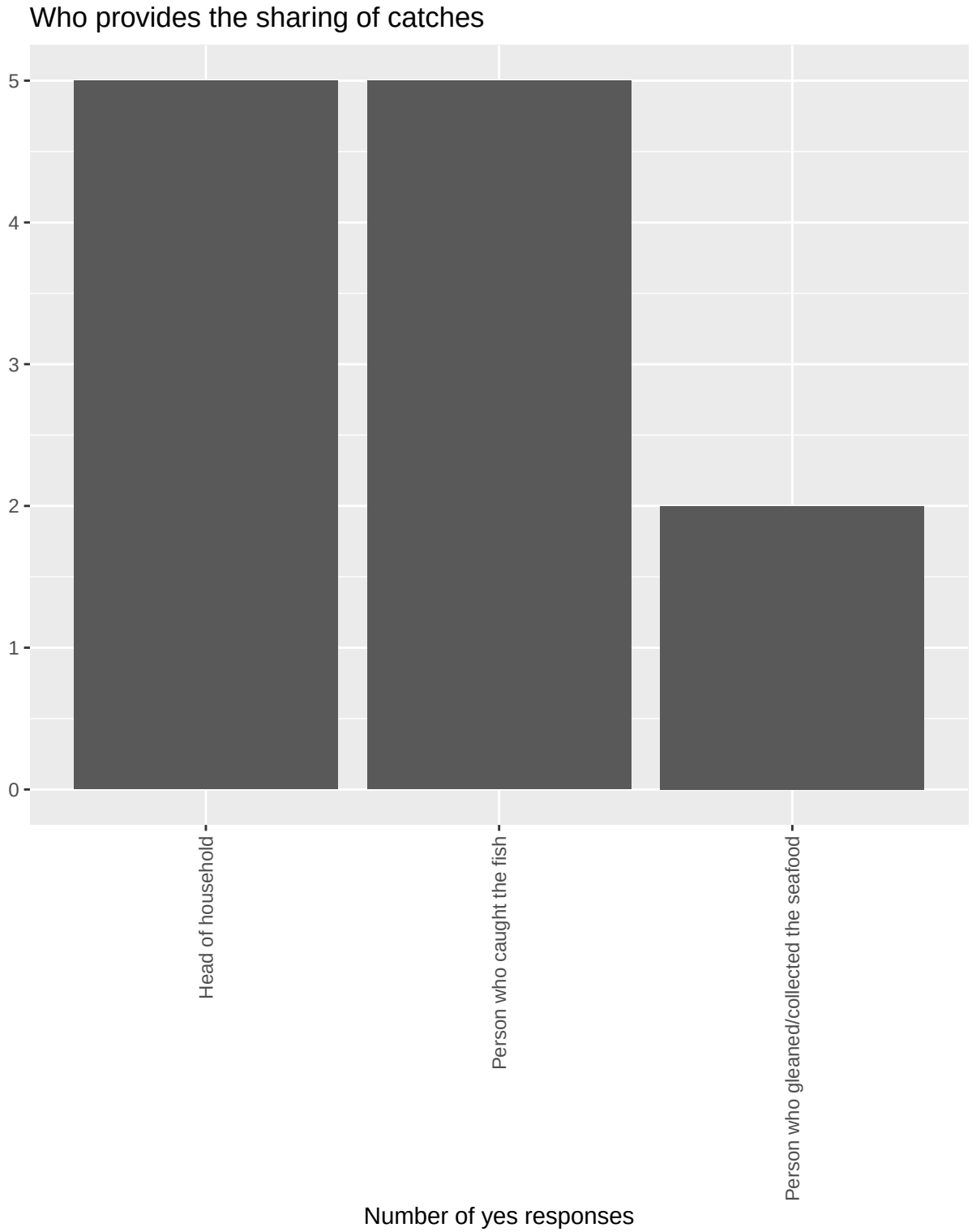


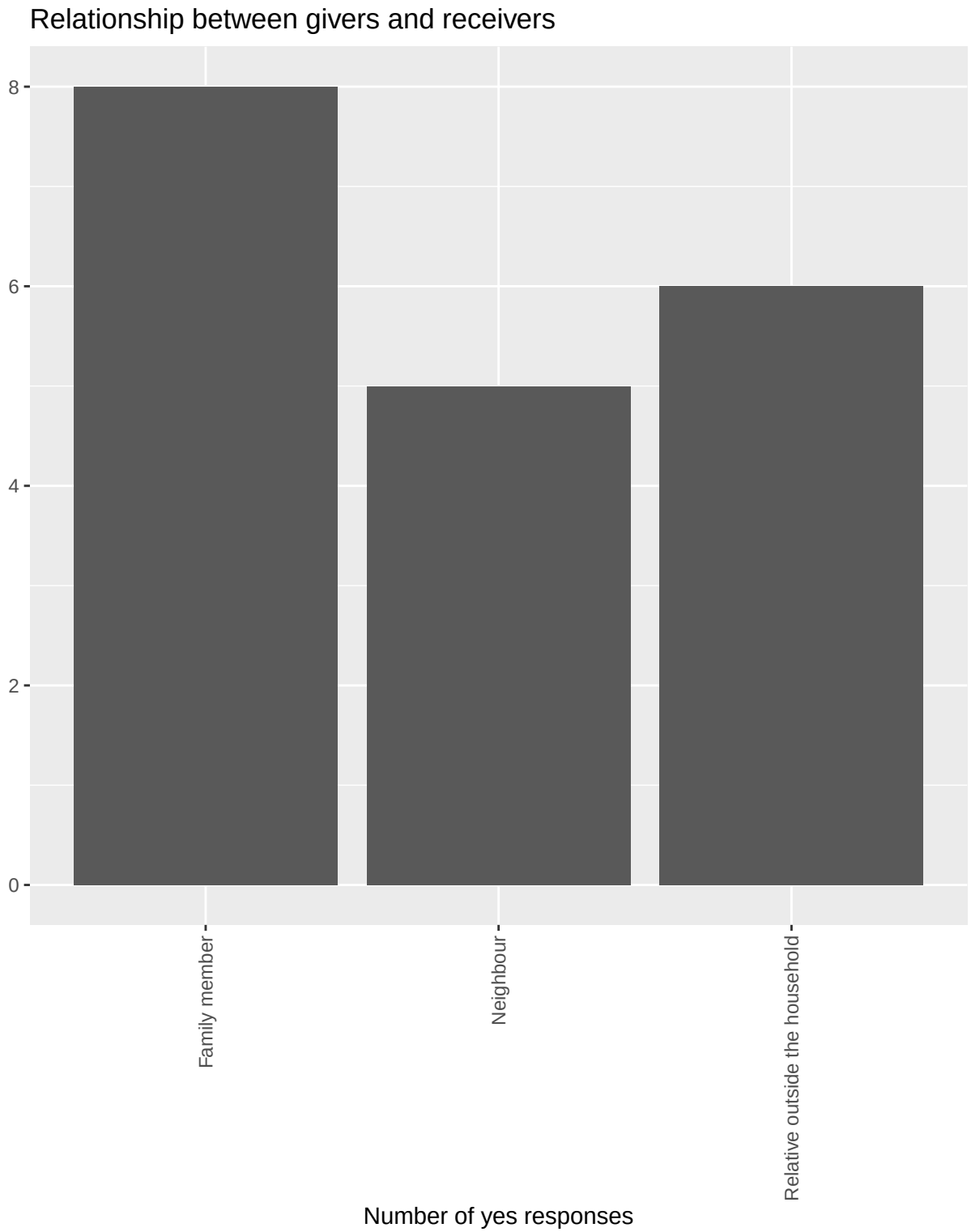

Who provides the sharing of catches
7.5
5.0
2.5
0.0
Fishing groups
Head of household
Person who caught the fish
Number of yes responses


Relationship between givers and receivers
8
6
4
2
0
Business partner
Family member
Neighbour
Relative outside the household
Number of yes responses

Asset: Non-fish foods



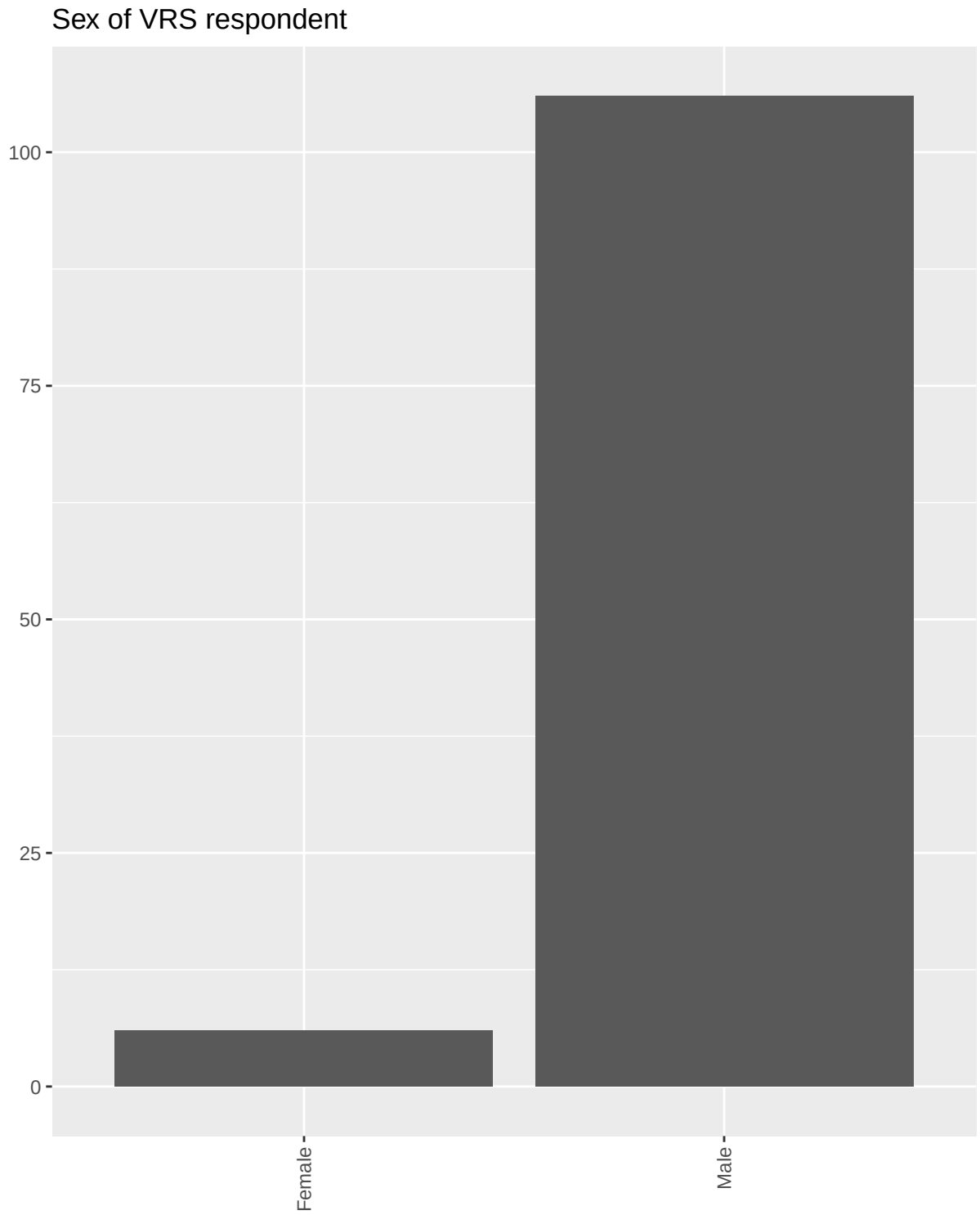

Who provides the sharing of catches
5
4
3
2
1
0
Head of household
Person who caught the fish
Person who gleaned/collected the seafood
Number of yes responses

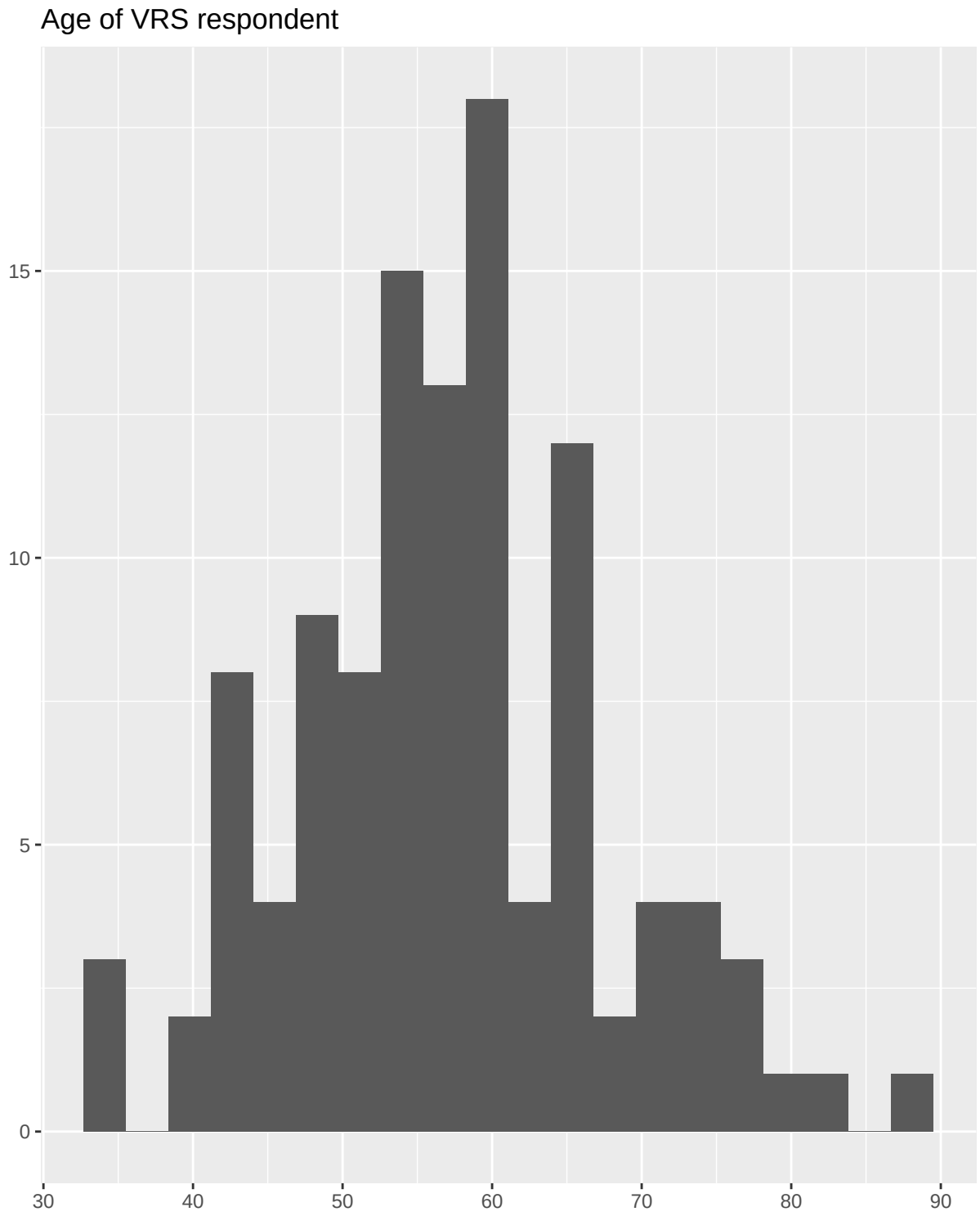

Relationship between givers and receivers
8
6
4
2
0
Family member
Neighbour
Relative outside the household
Number of yes responses

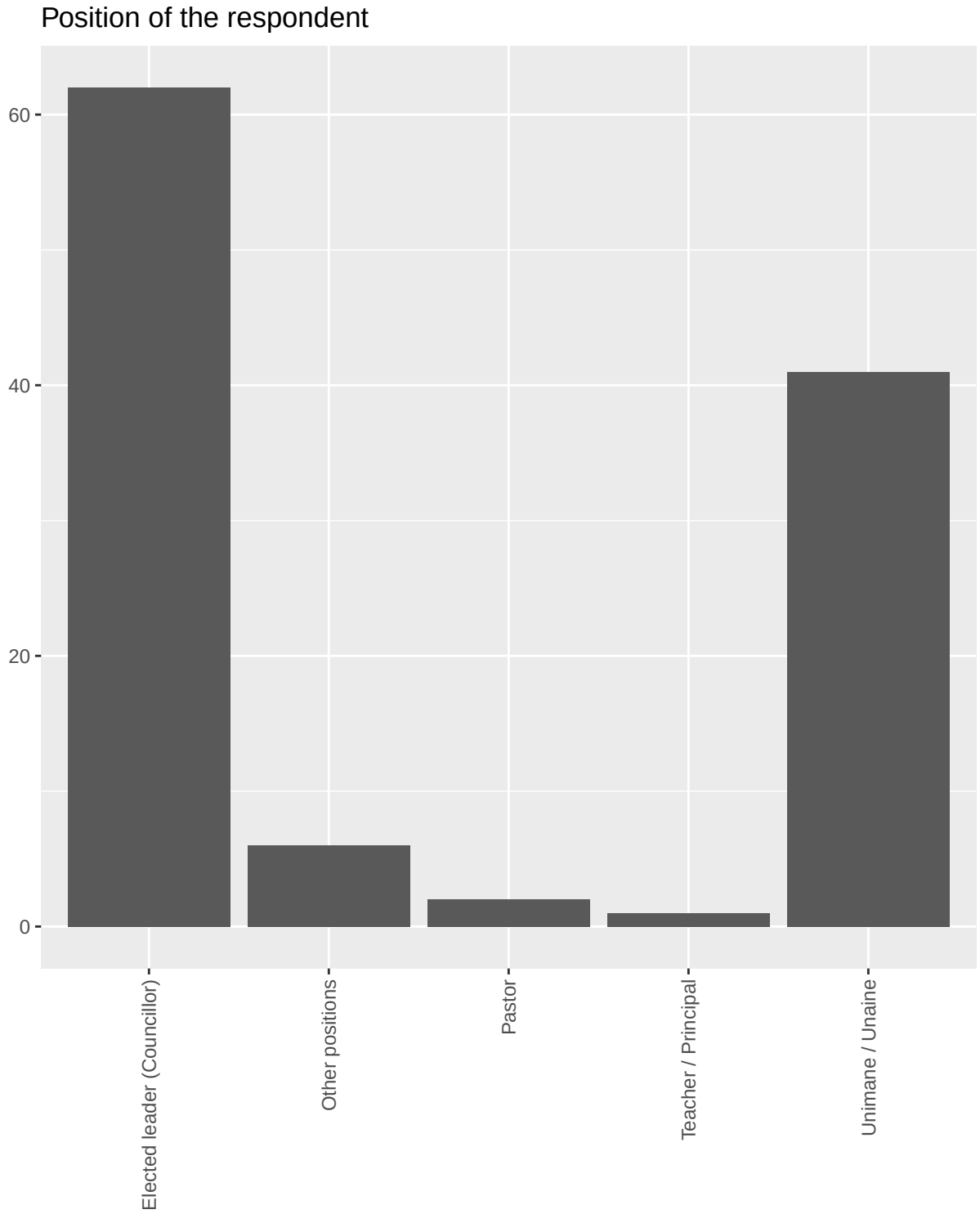
VRS Roster Data: List of events

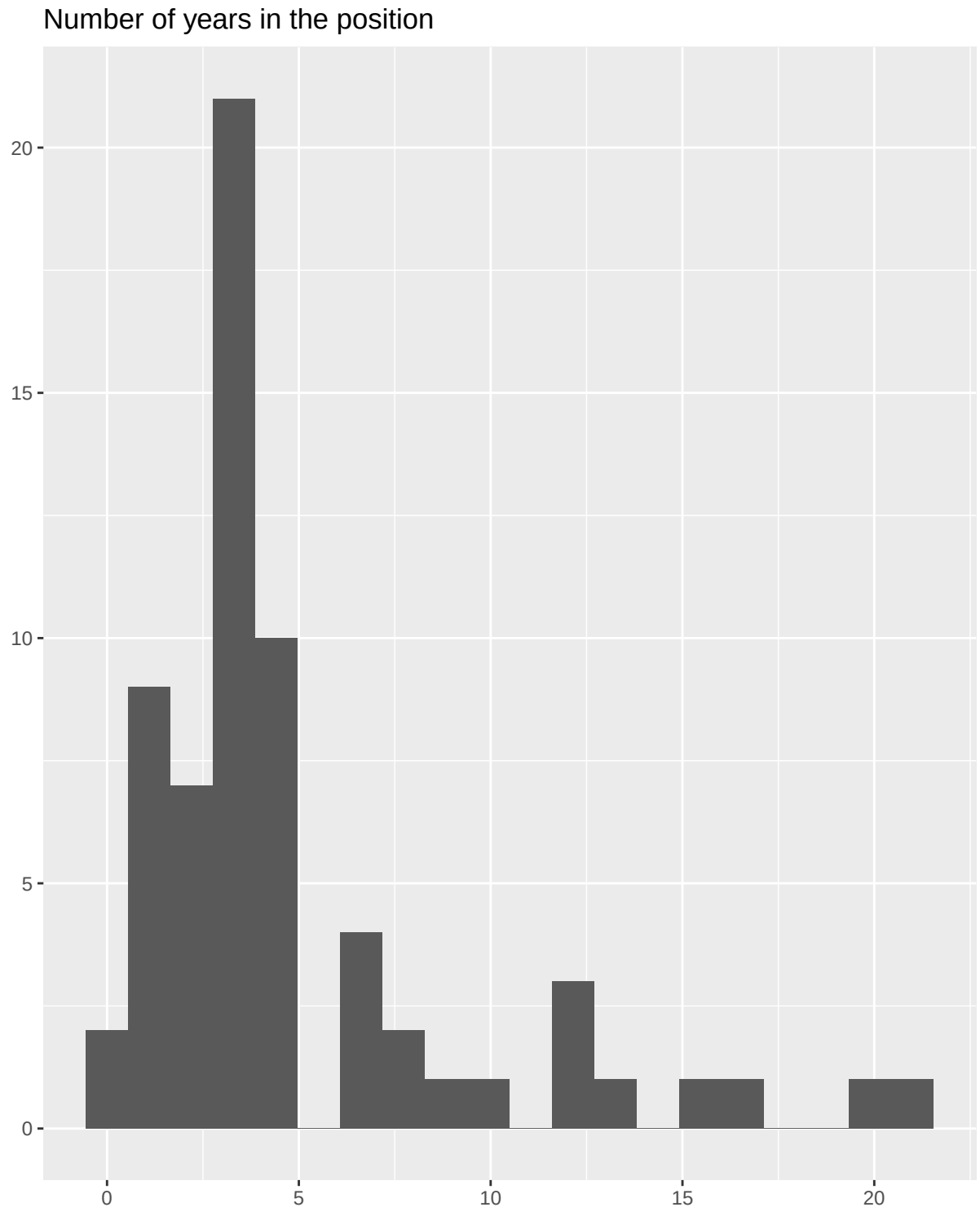
```
## # A tibble: 2 x 1
##   vrs_roster__id
##   <chr>
## 1 1
## 2 2
```

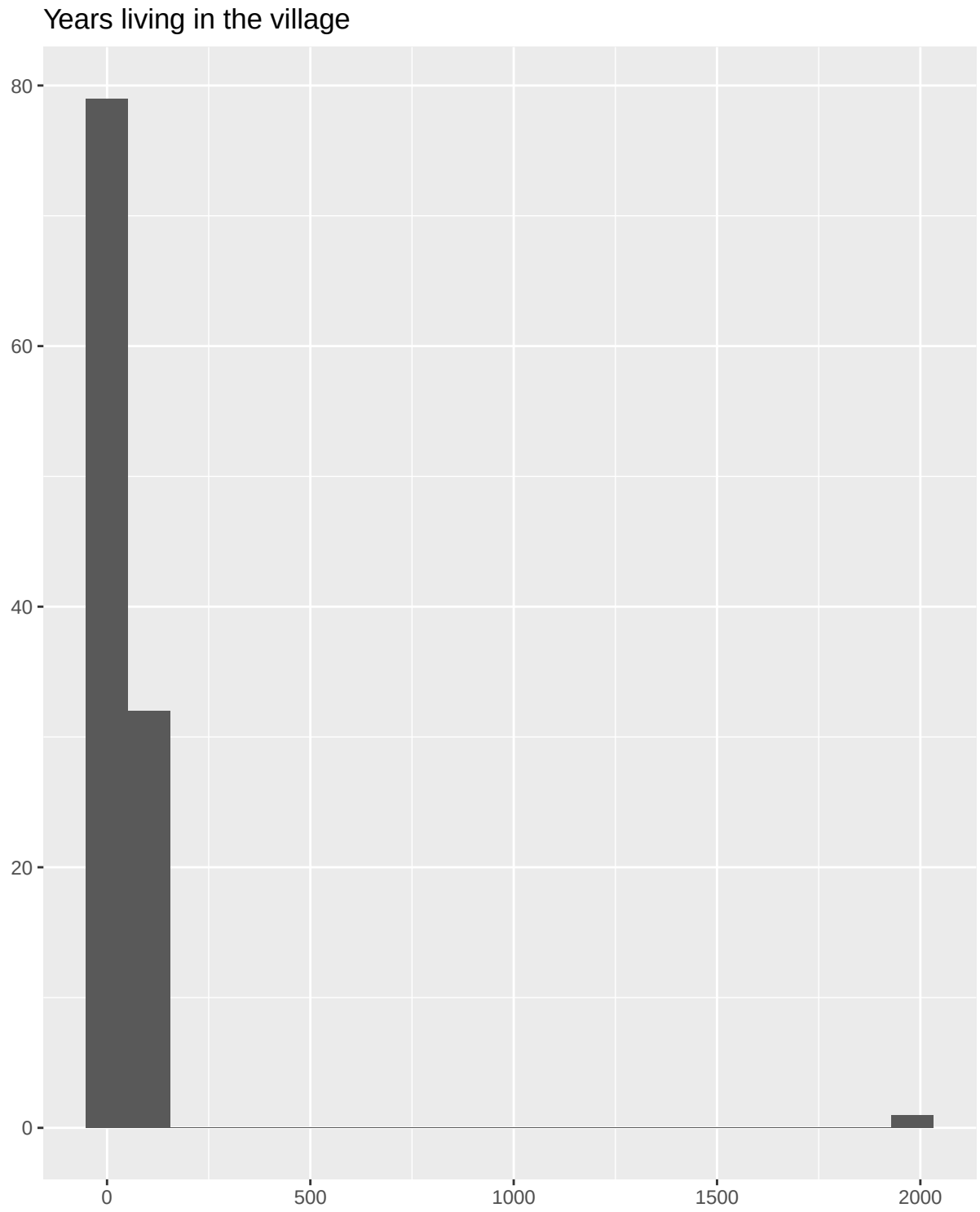
VRS Roster: 1




Age of VRS respondent
15
10
5
0
30
40
50
60
70
80
90


Position of the respondent
60
40
20
0
Elected leader (Councillor)
Other positions
Pastor
Teacher / Principal
Unimane / Unaine


Number of years in the position
20
15
10
5
0
0
5
10
15
20

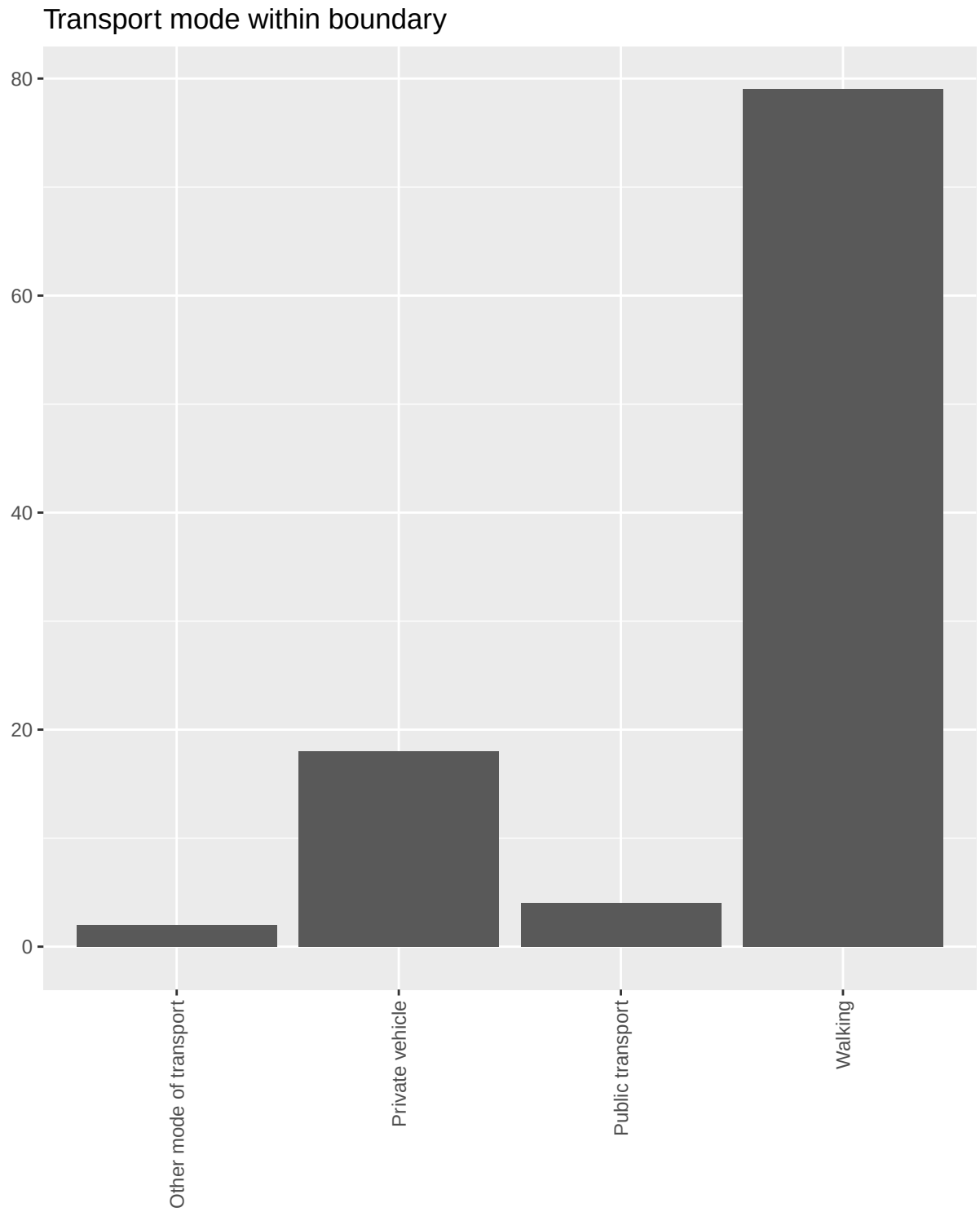

Years living in the village
80
60
40
20
0
0
500
1000
1500
2000

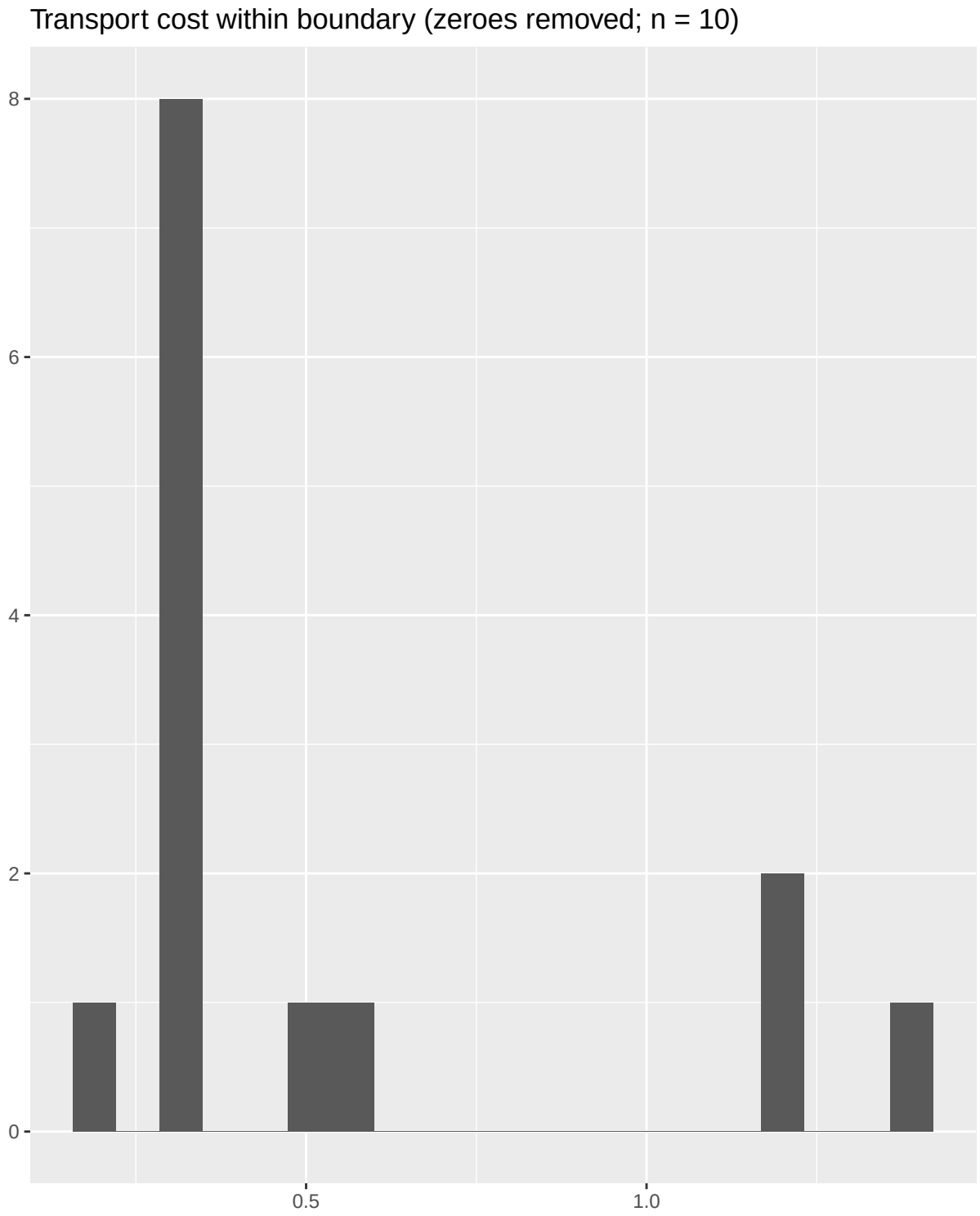
VRS Roster: 2

Note: only contains one individual with the following characteristics

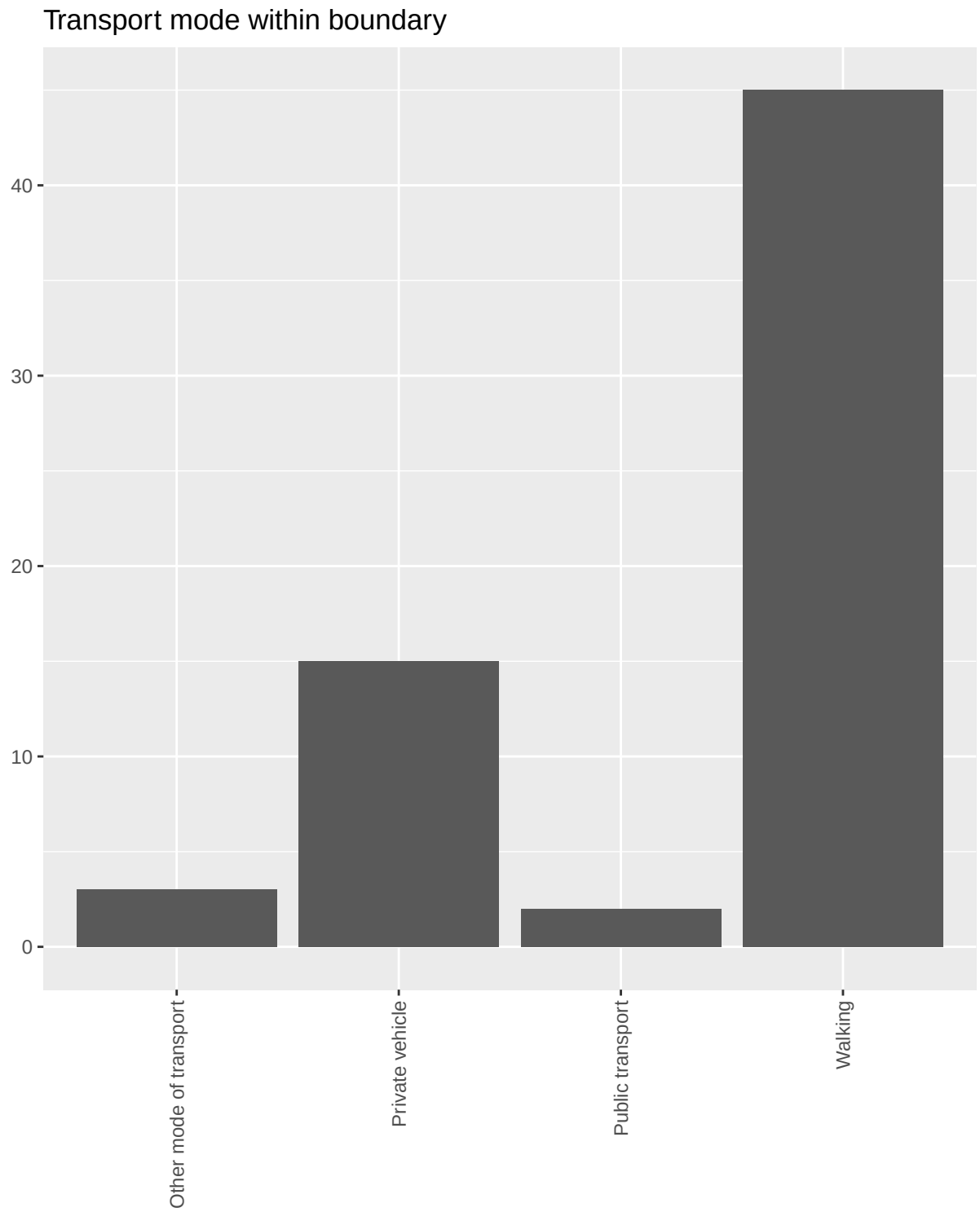
```
## # A tibble: 11 x 1
##    within_roster__id
##    <chr>
##  1 Nearest Church
##  2 Nearest Trade Store/Supermarket
##  3 Airport
##  4 Clinic/Hospital
##  5 Nearest fish landing site
##  6 Nearest Credit Facility
##  7 Nearest Market
##  8 Nearest Post Office
##  9 Nearest Police Station
## 10 Nearest Court House
## 11 Bank
```

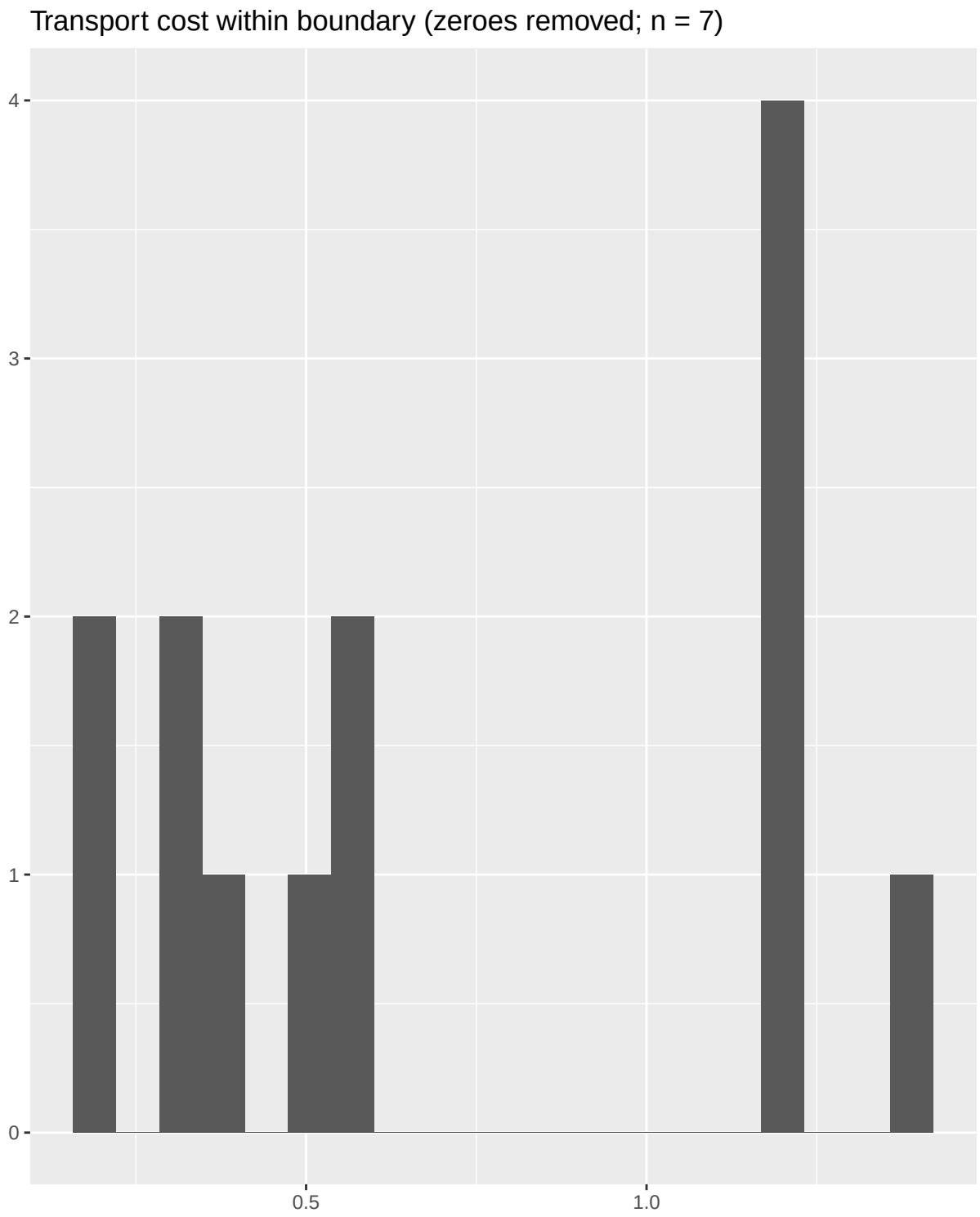
Asset: Nearest Church



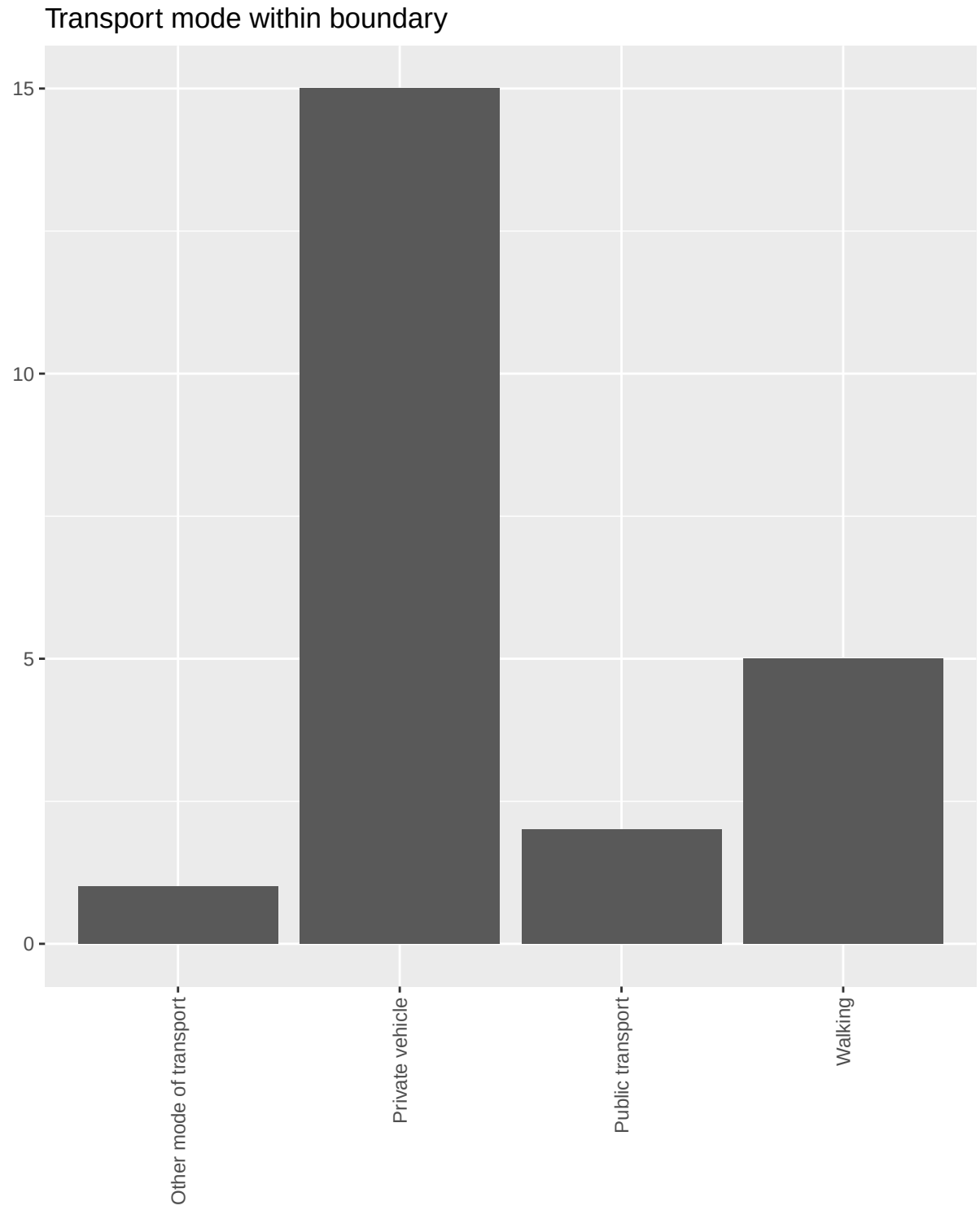

Transport cost within boundary (zeroes removed; n = 10)
8
6
4
2
0
0.5
1.0

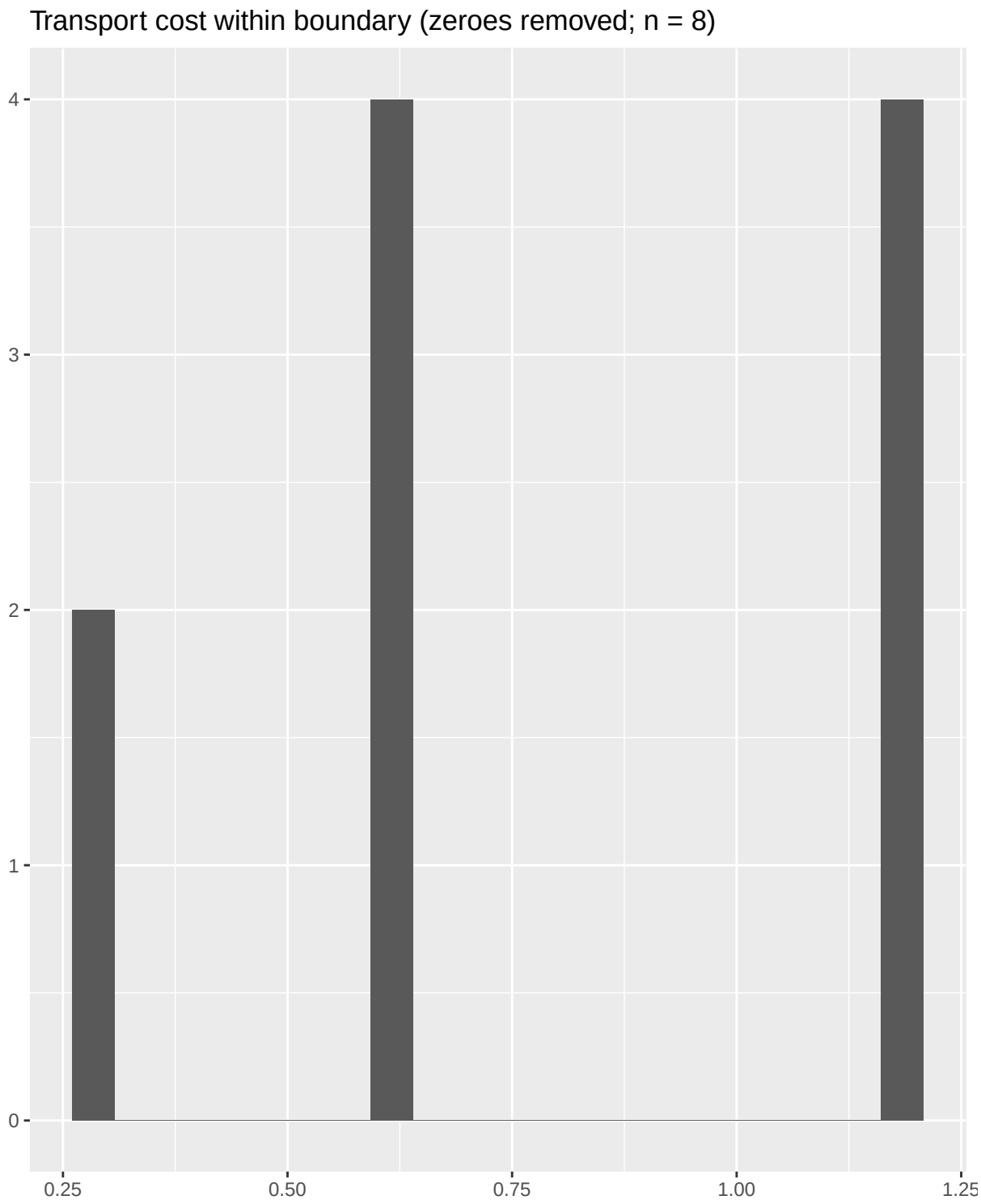
Asset: Nearest Trade Store/Supermarket



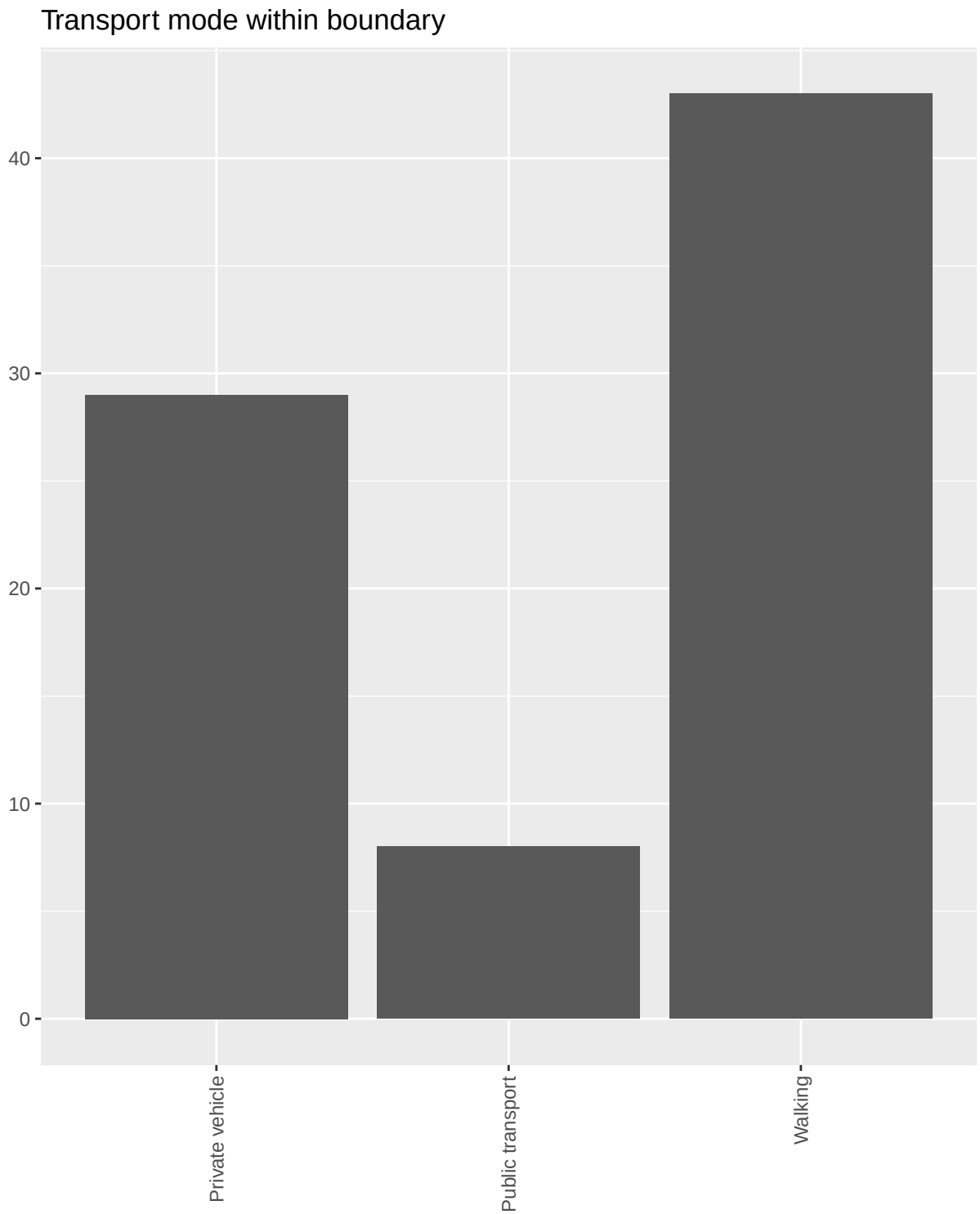

Transport cost within boundary (zeroes removed; n = 7)
4
3
2
1
0
0.5
1.0

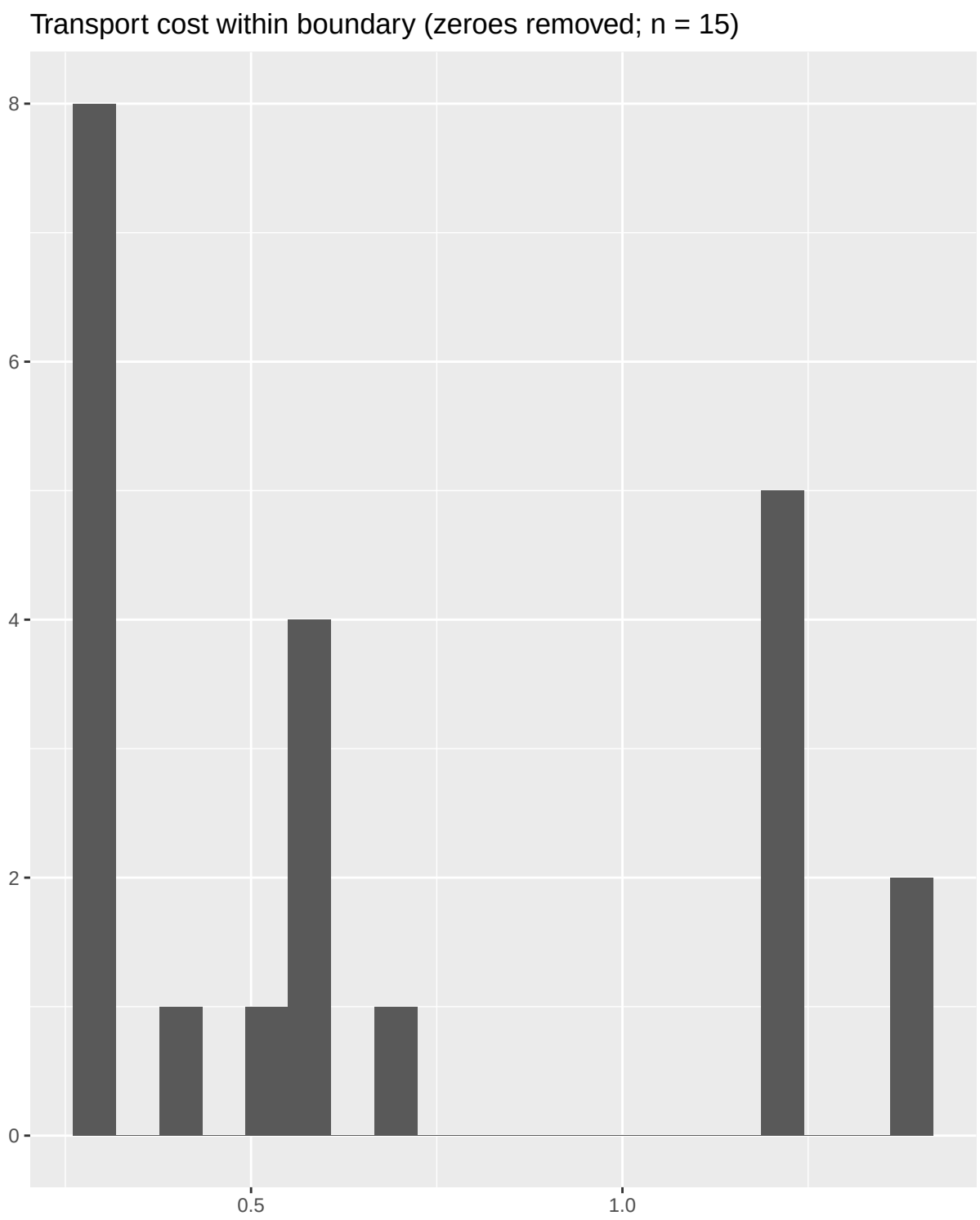
Asset: Airport



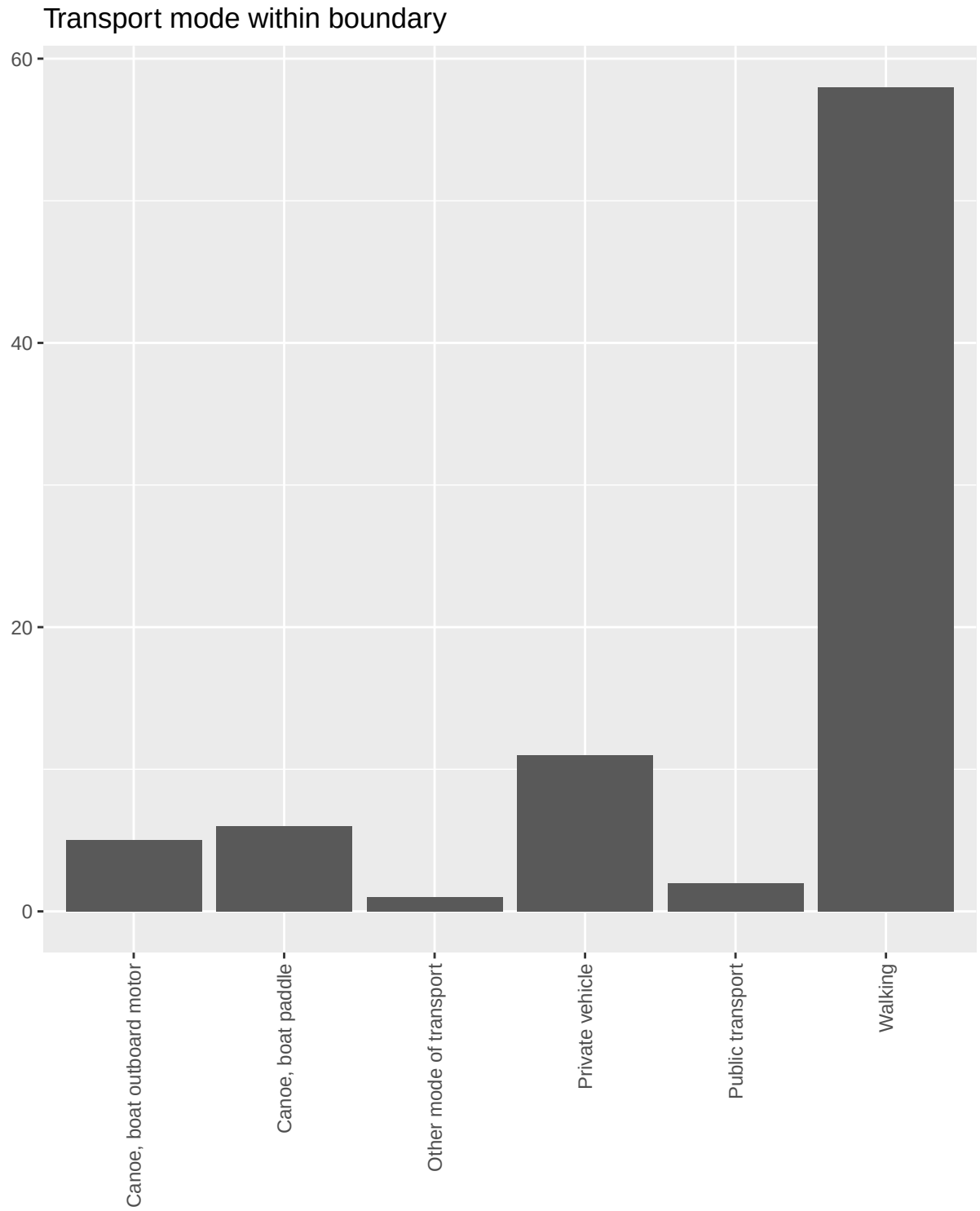

Transport cost within boundary (zeroes removed; n = 8)
4
3
2
1
0
0.25
0.50
0.75
1.00
1.25

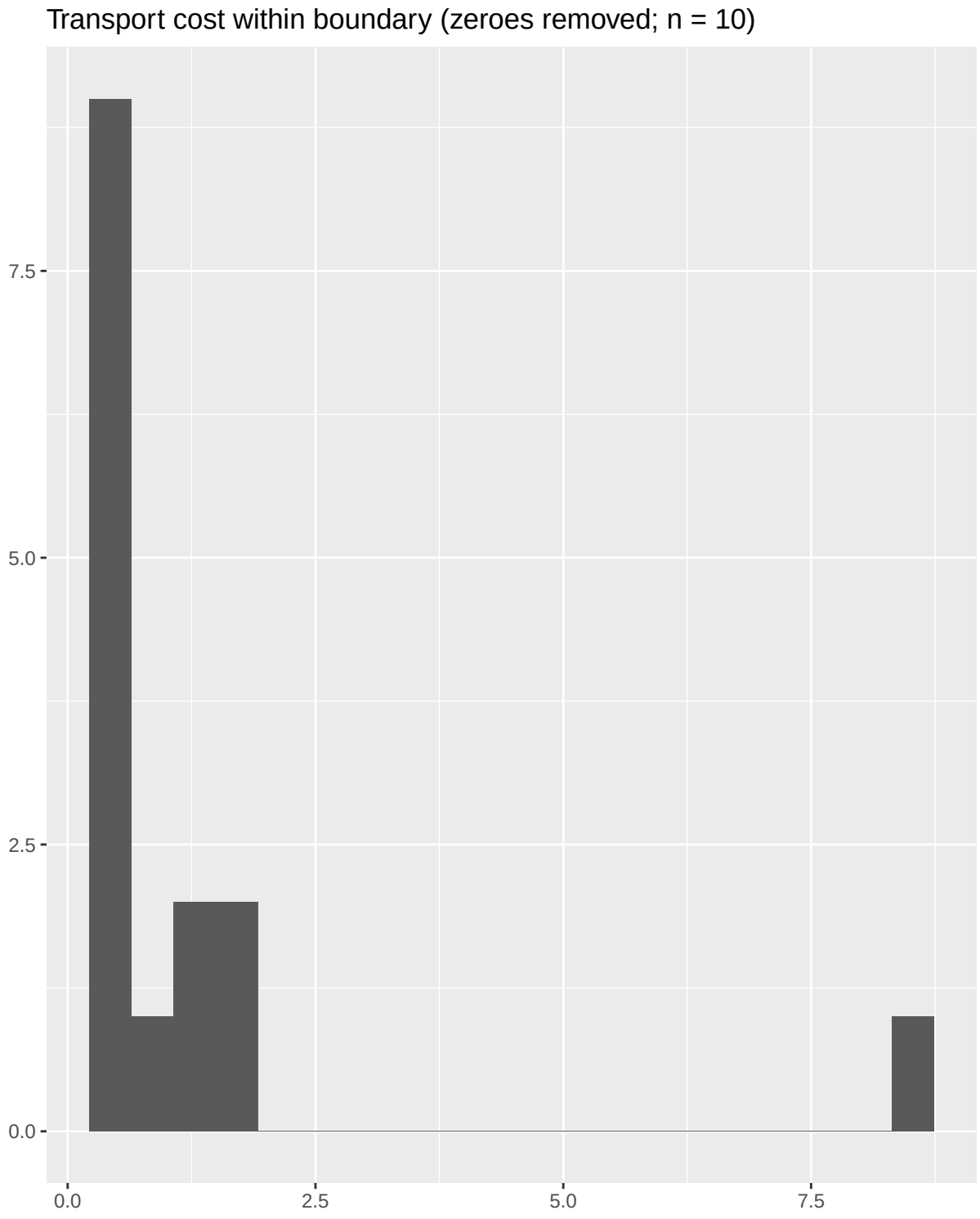
Asset: Clinic/Hospital



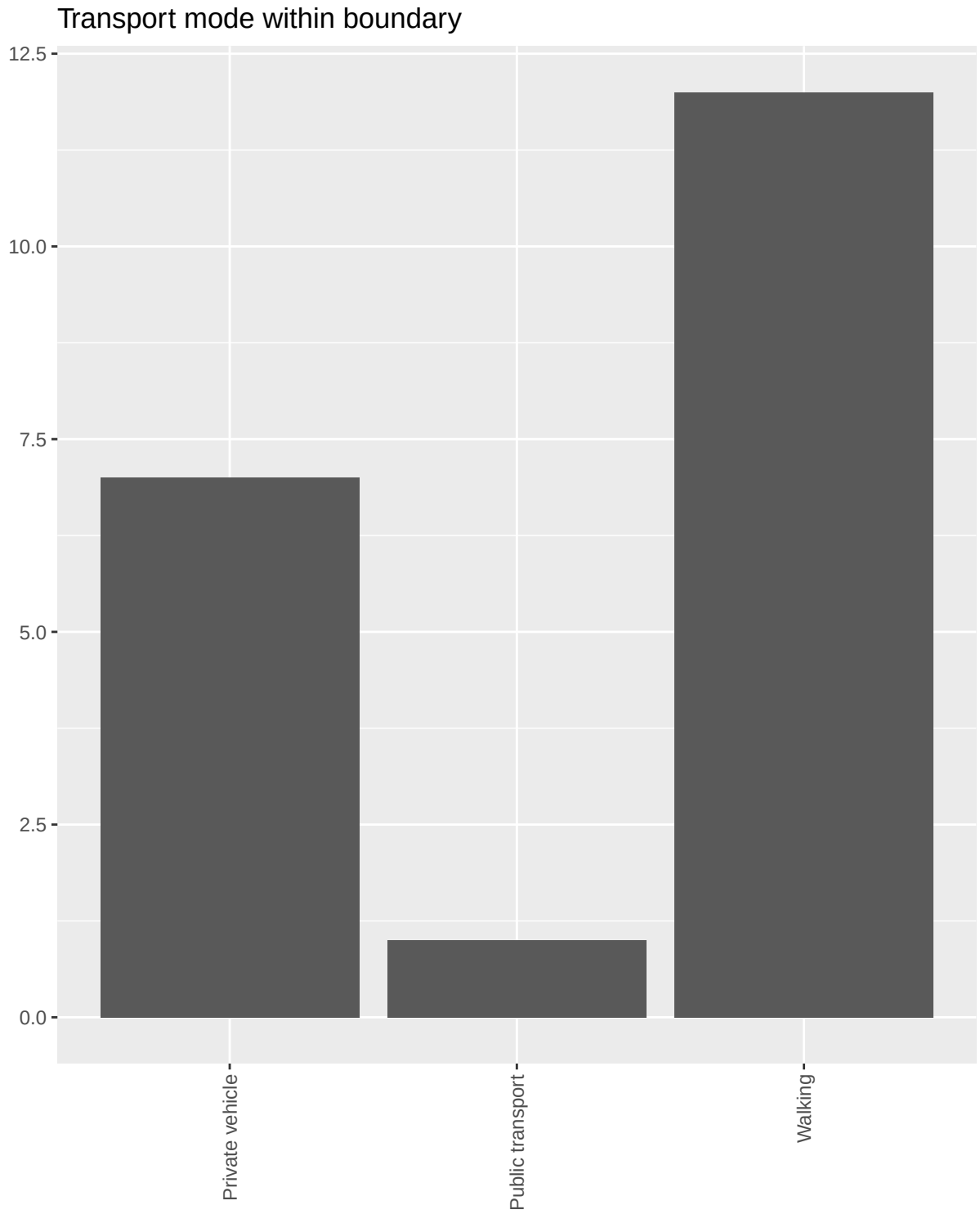

Transport cost within boundary (zeroes removed; n = 15)
8
6
4
2
0
0.5
1.0

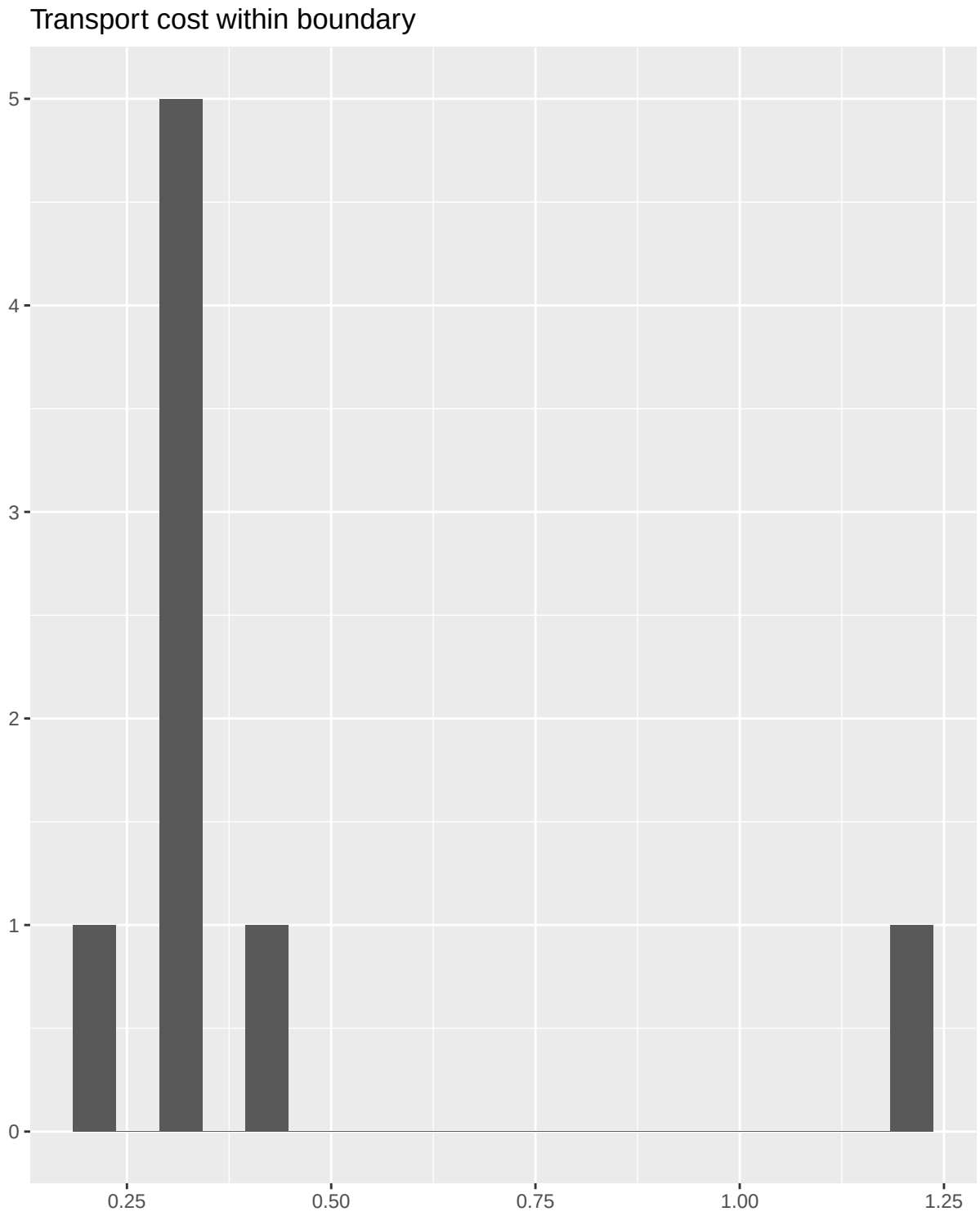
Asset: Nearest fish landing site



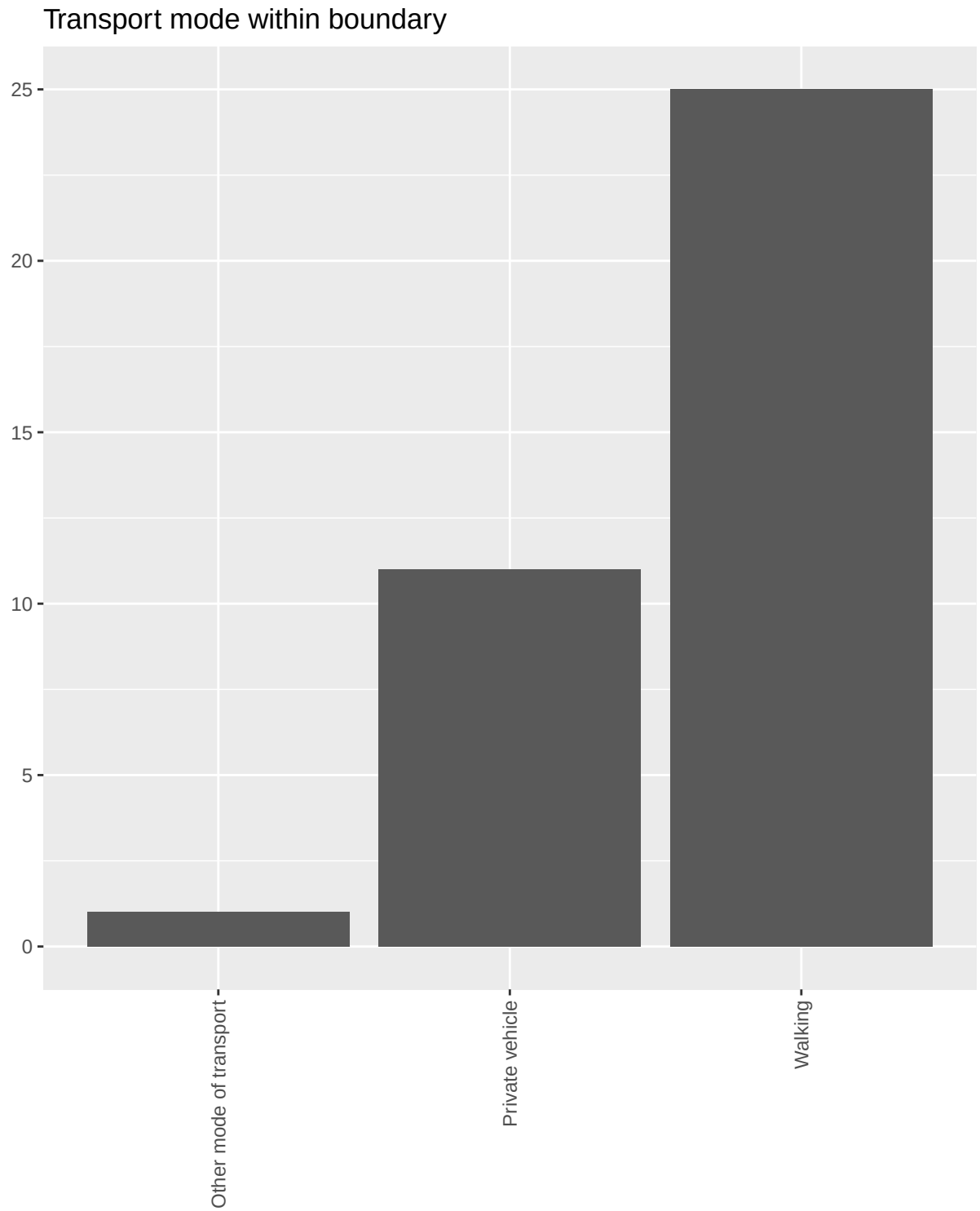

Transport cost within boundary (zeroes removed; n = 10)
7.5
5.0
2.5
0.0
0.0
2.5
5.0
7.5

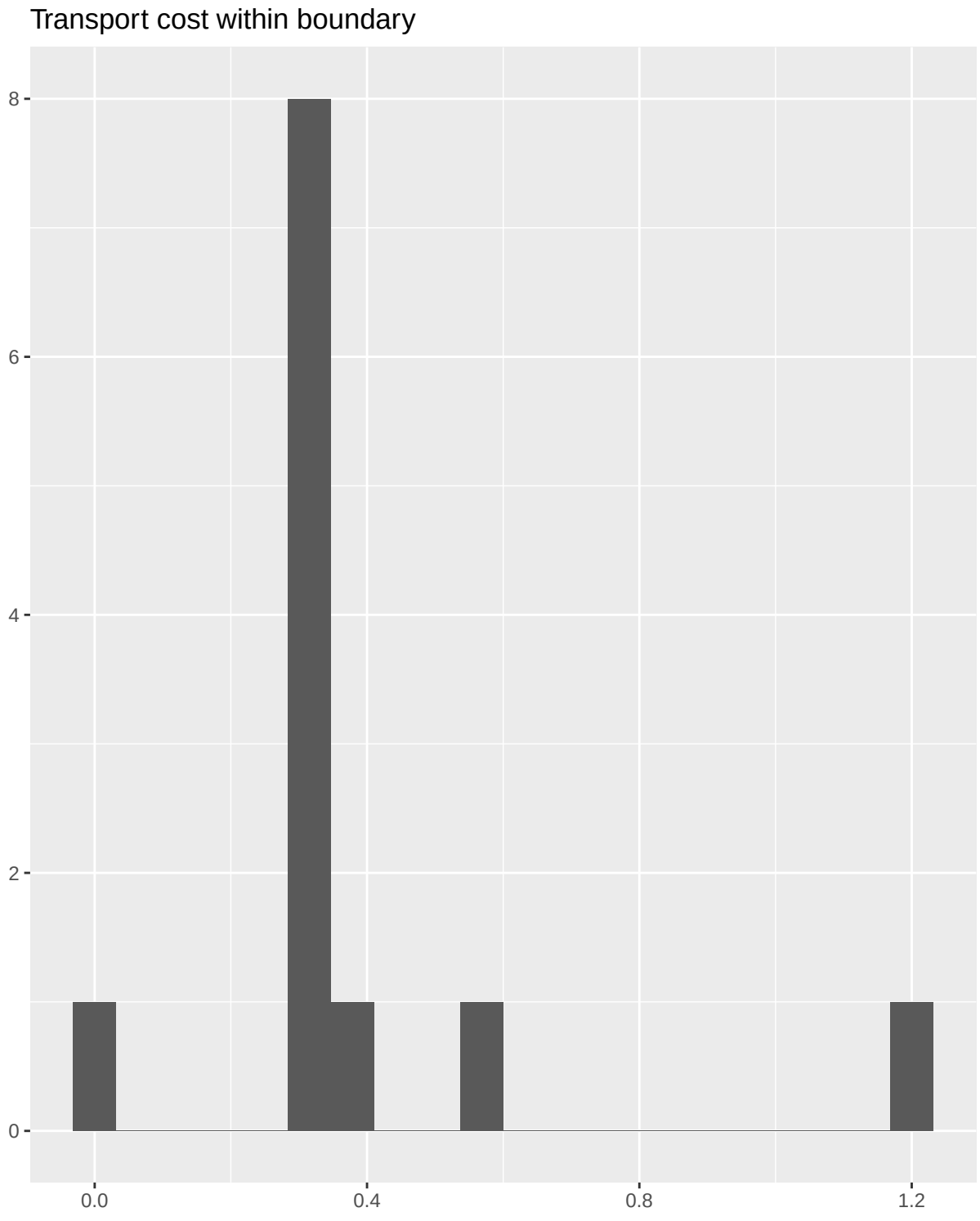
Asset: Nearest Credit Facility



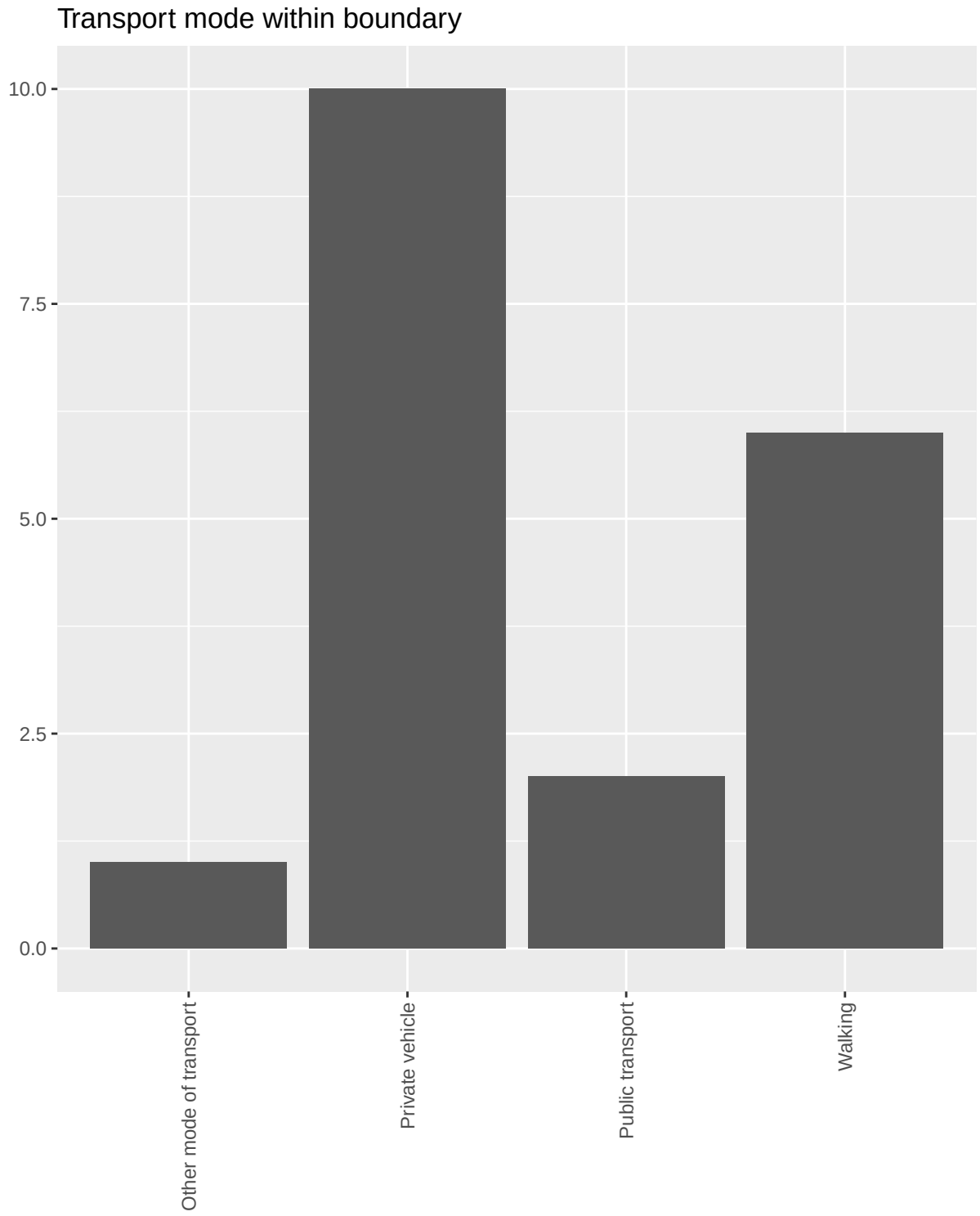

Transport cost within boundary
5
4
3
2
1
0
0.25
0.50
0.75
1.00
1.25

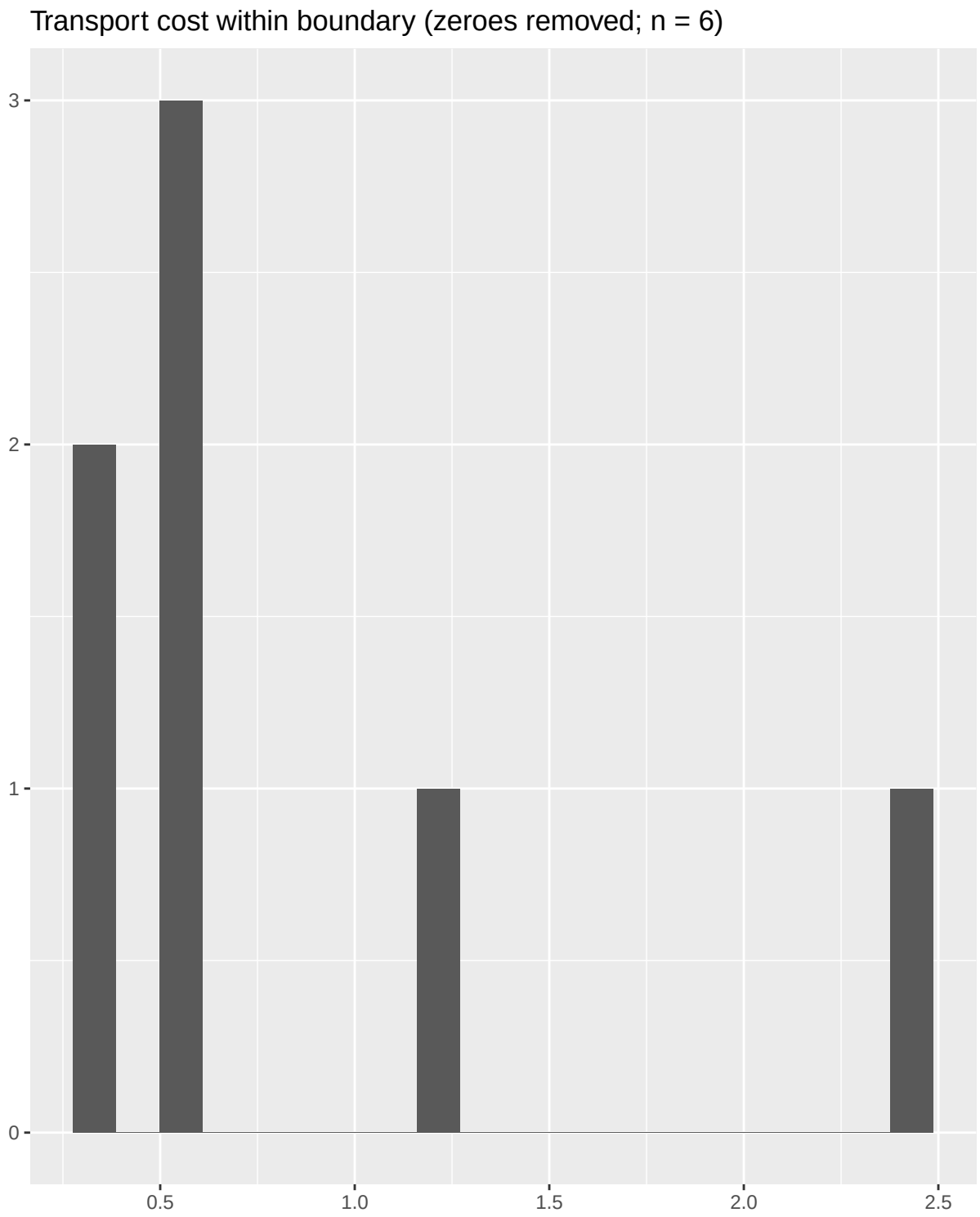
Asset: Nearest Market



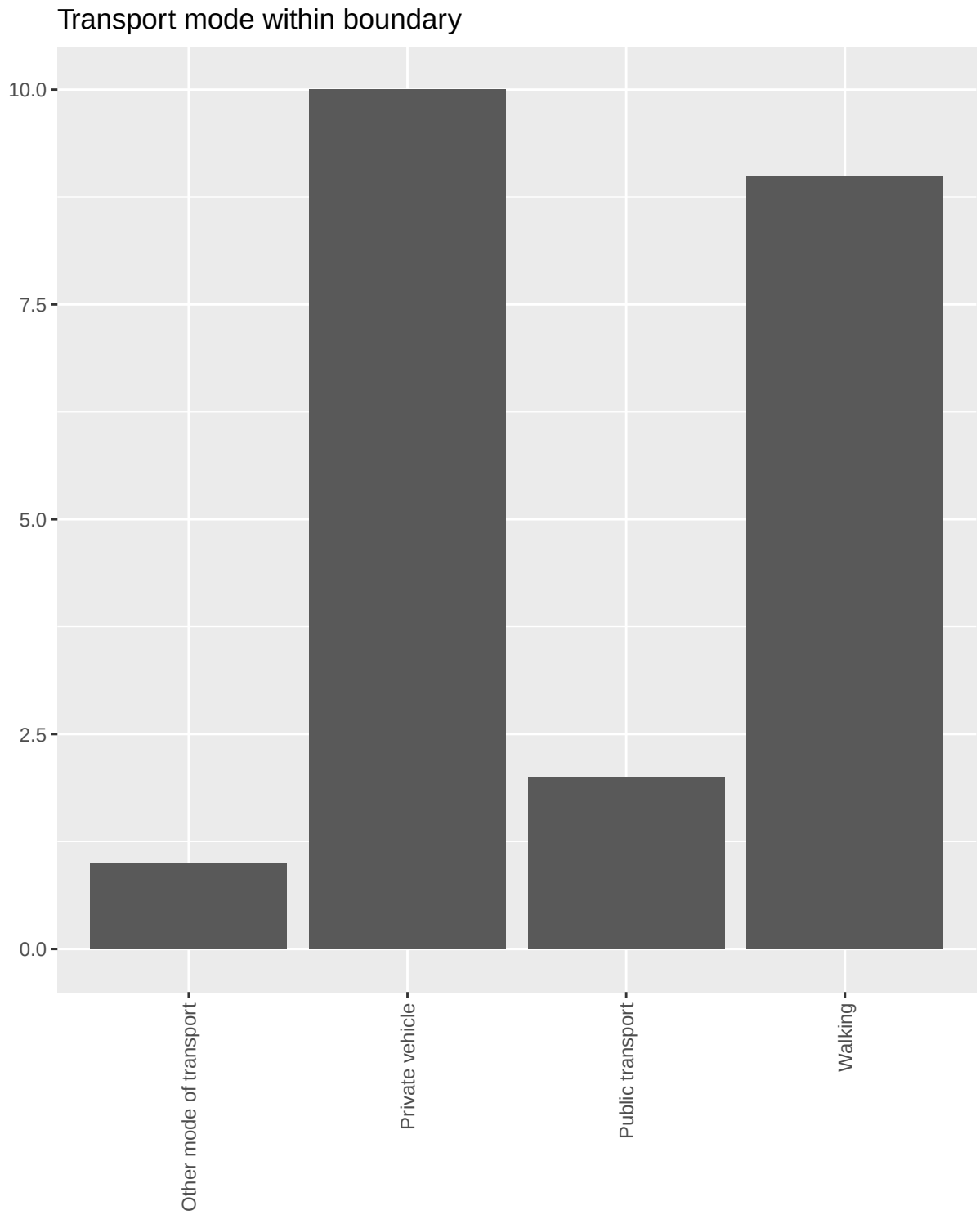

Transport cost within boundary
8
6
4
2
0
0.0
0.4
0.8
1.2

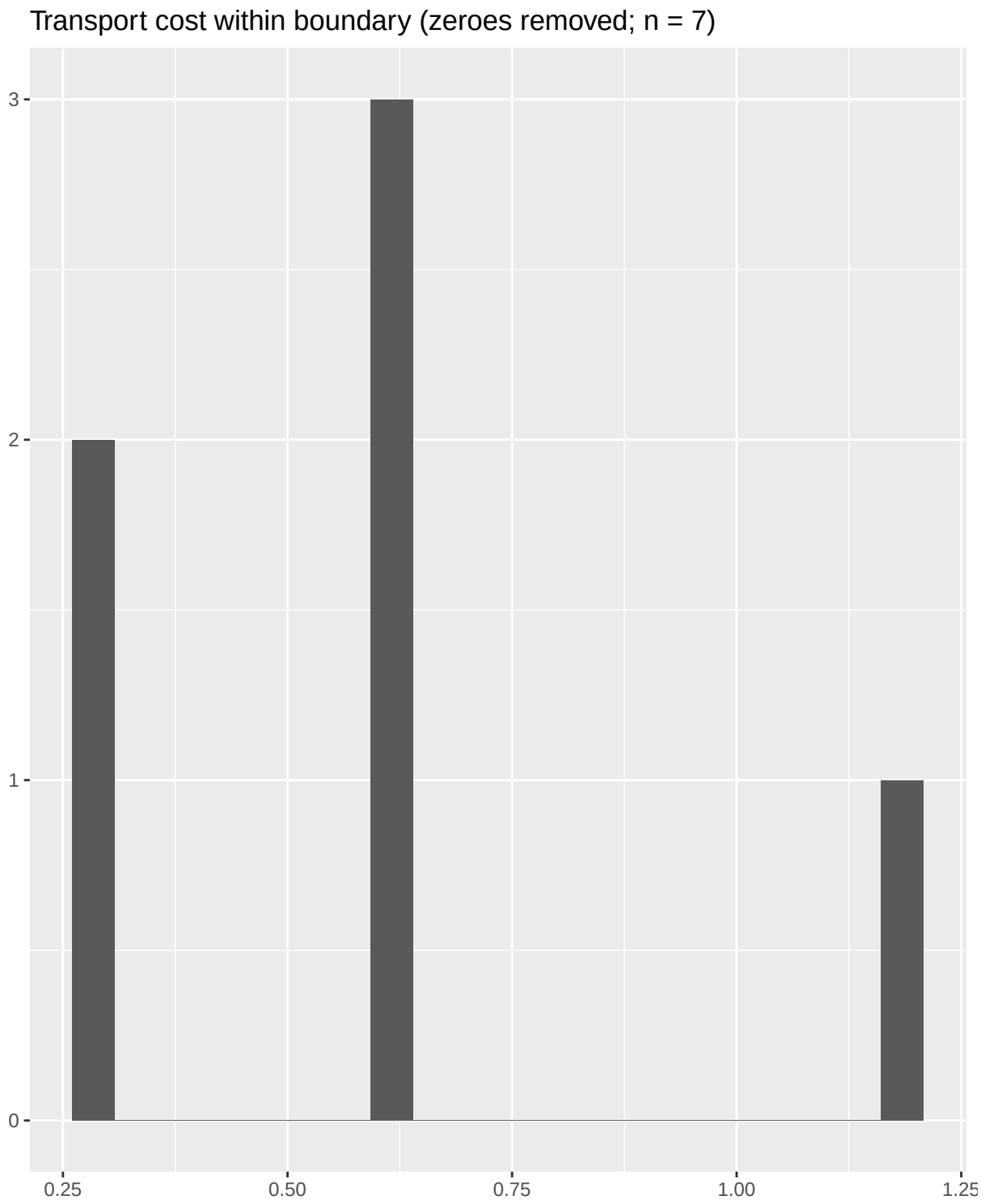
Asset: Nearest Post Office



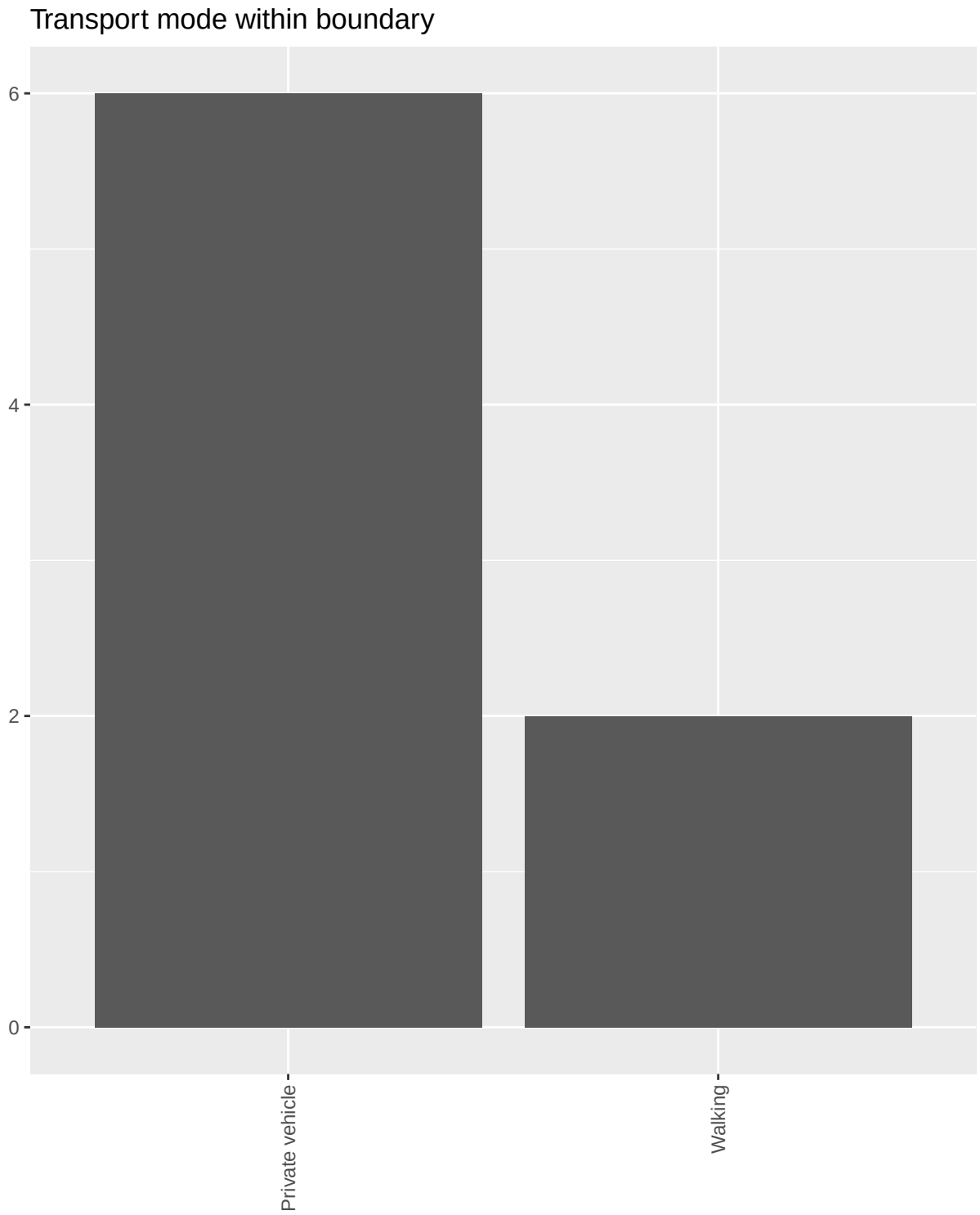

Transport cost within boundary (zeroes removed; n = 6)
3
2
1
0
0.5
1.0
1.5
2.0
2.5

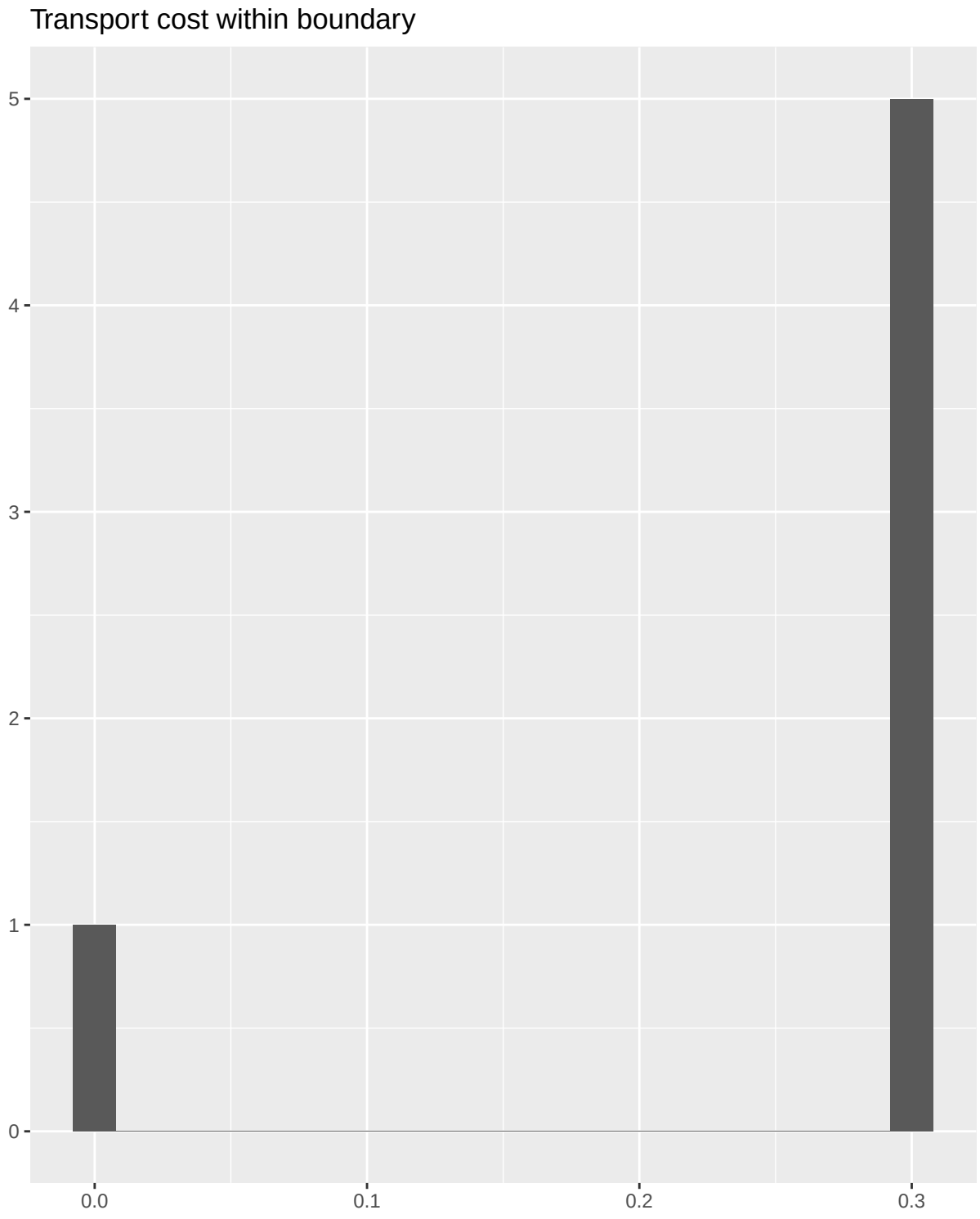
Asset: Nearest Court House



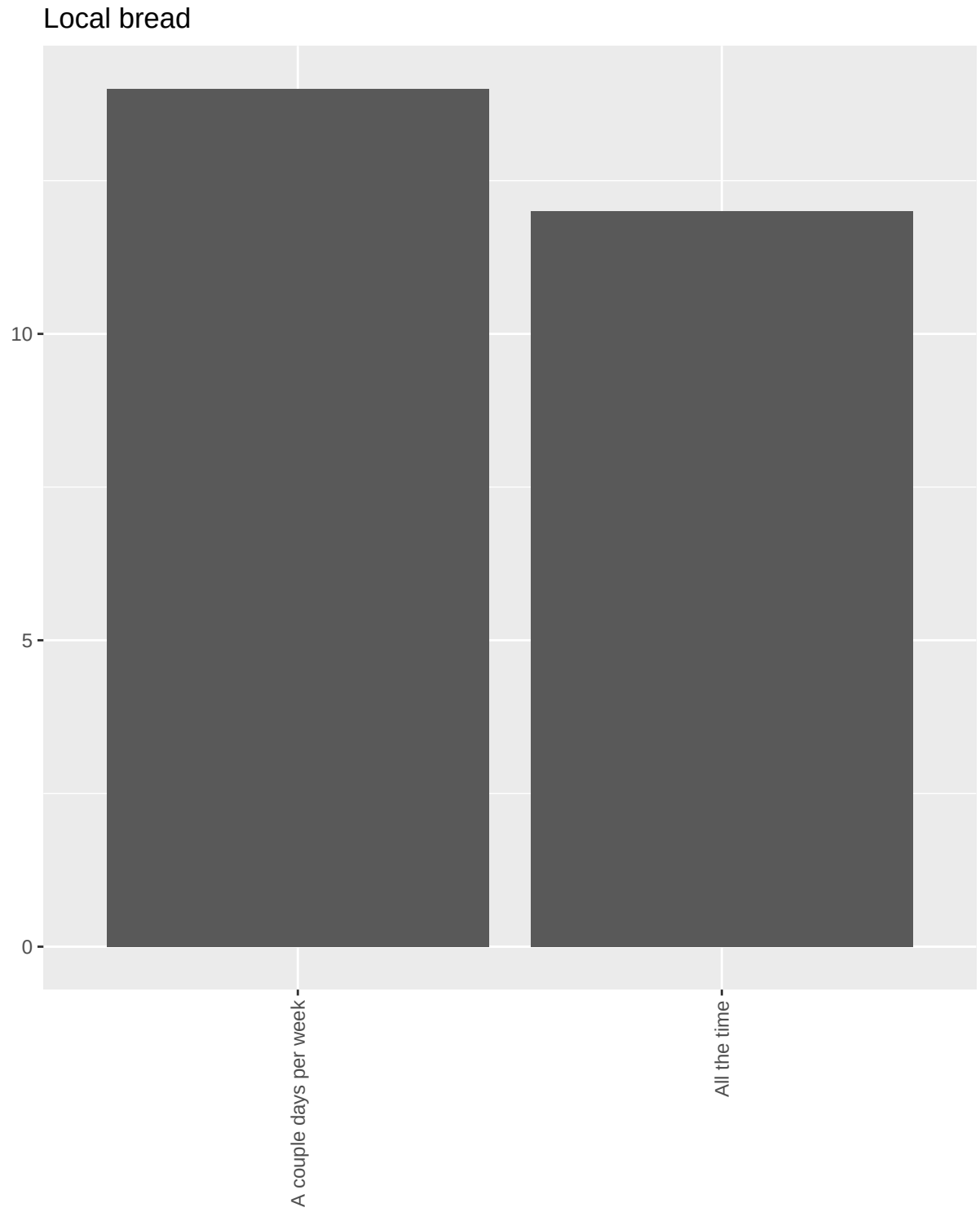

Transport cost within boundary (zeroes removed; n = 7)
3
2
1
0
0.25
0.50
0.75
1.00
1.25

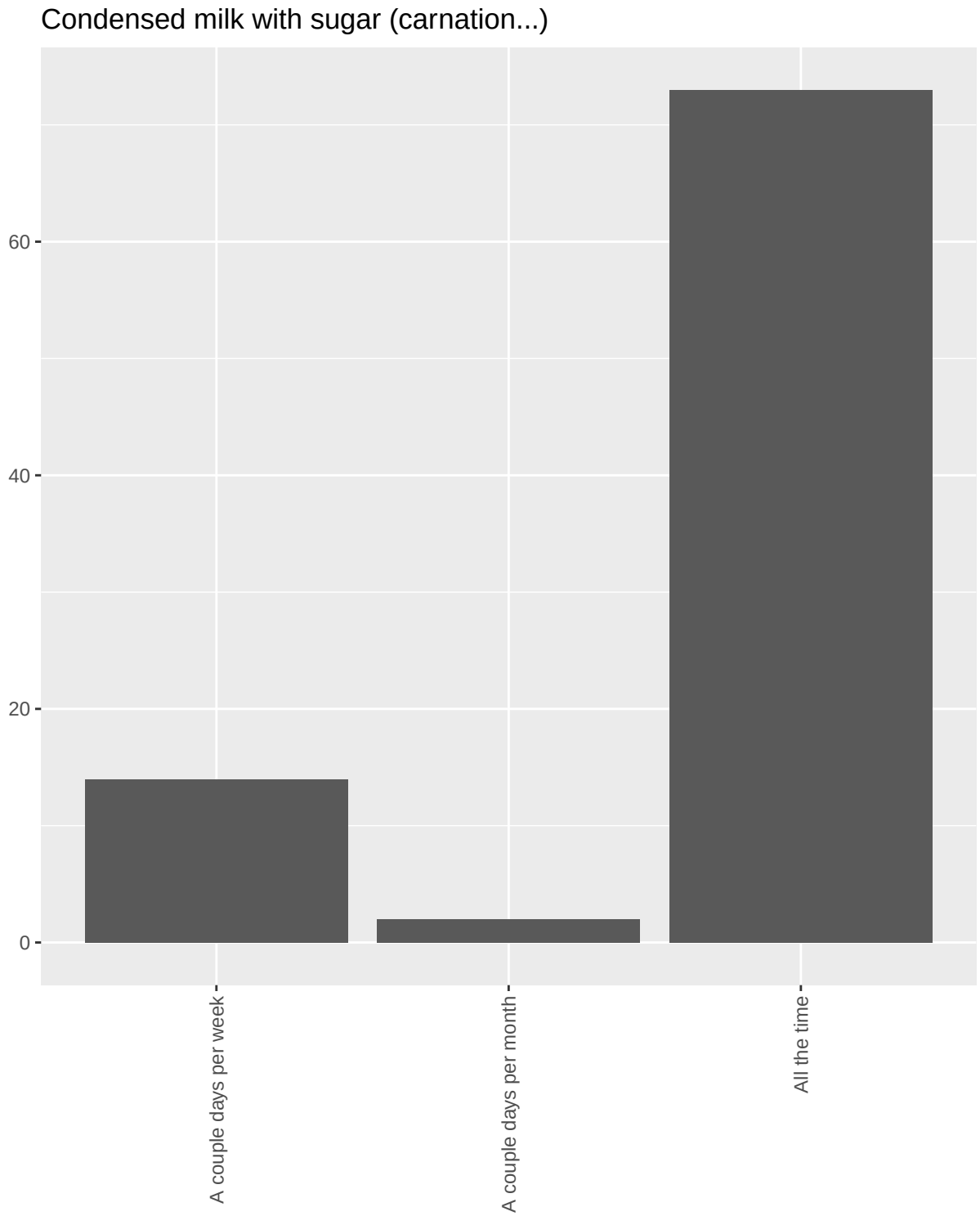
Asset: Bank

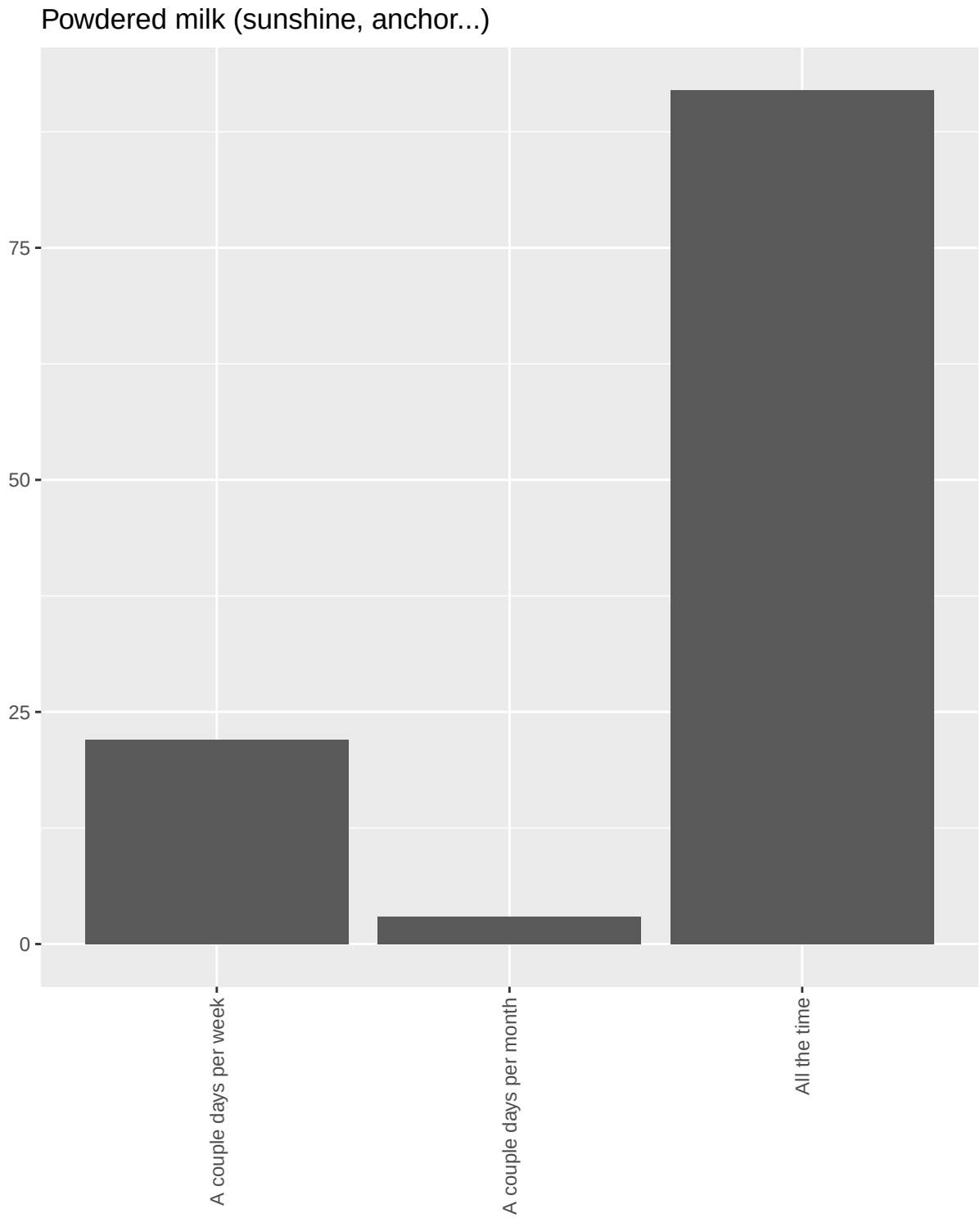

Transport mode within boundary
6
4
2
0
Private vehicle
Walking

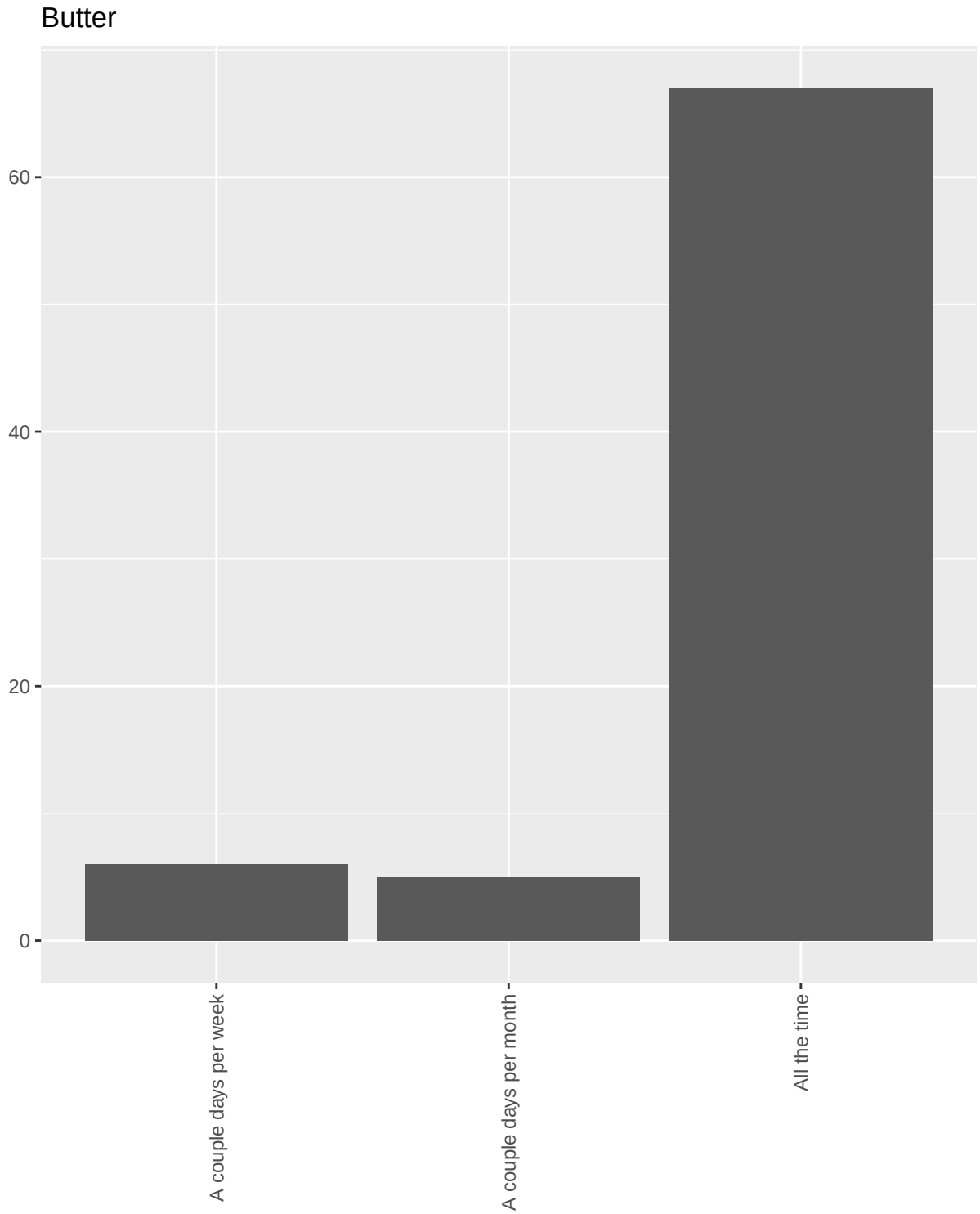

Transport cost within boundary
5
4
3
2
1
0
0.0
0.1
0.2
0.3

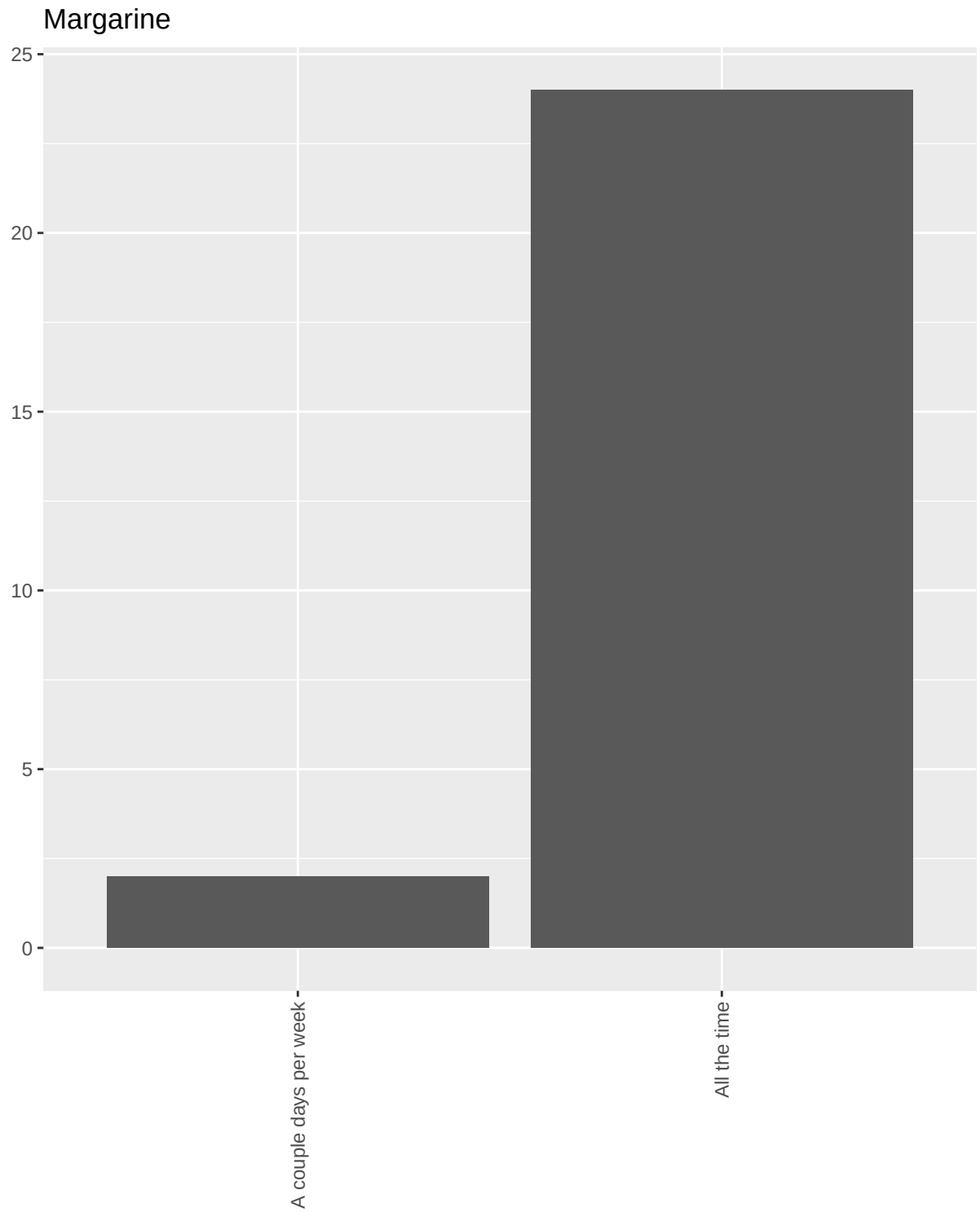
Market survey

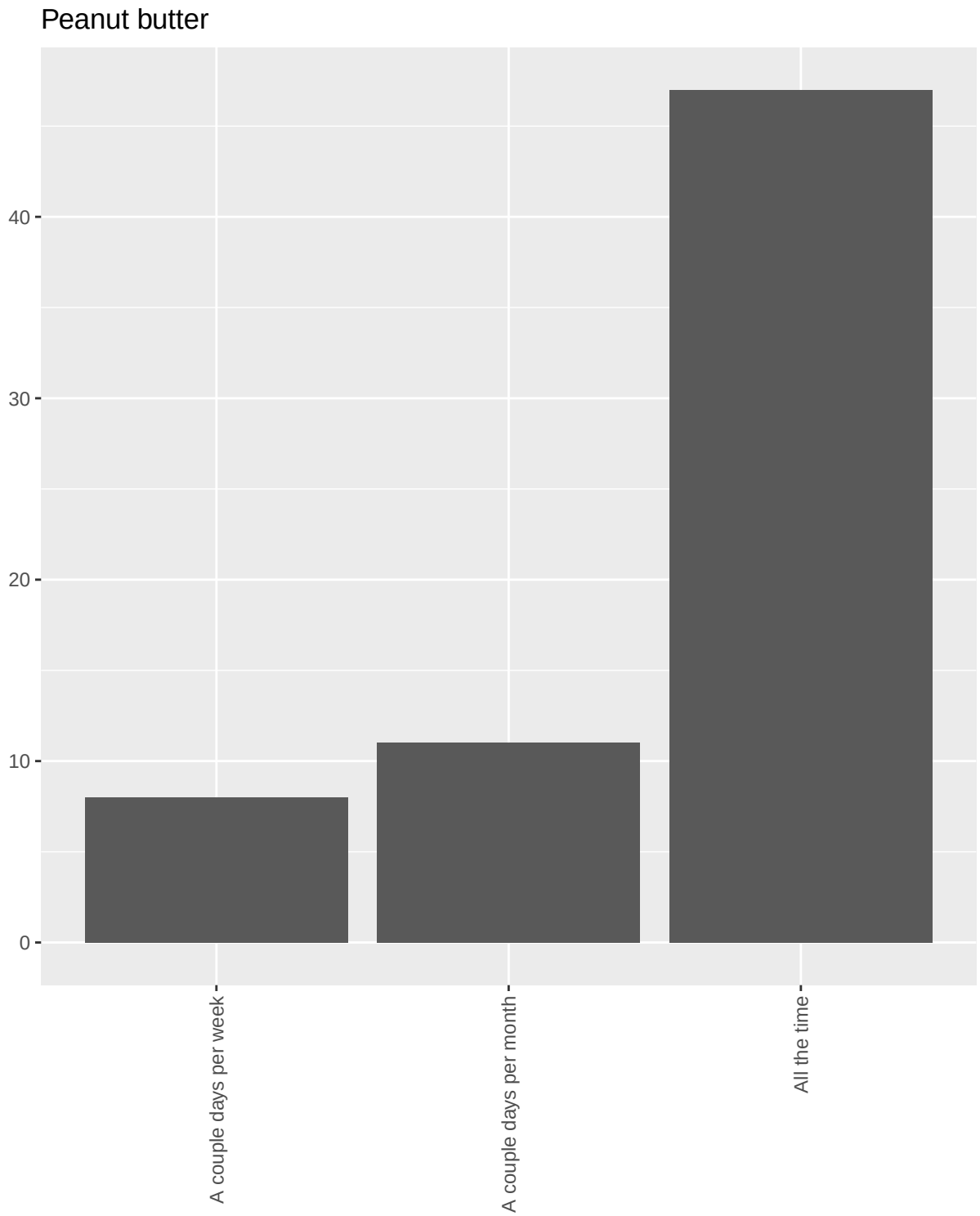


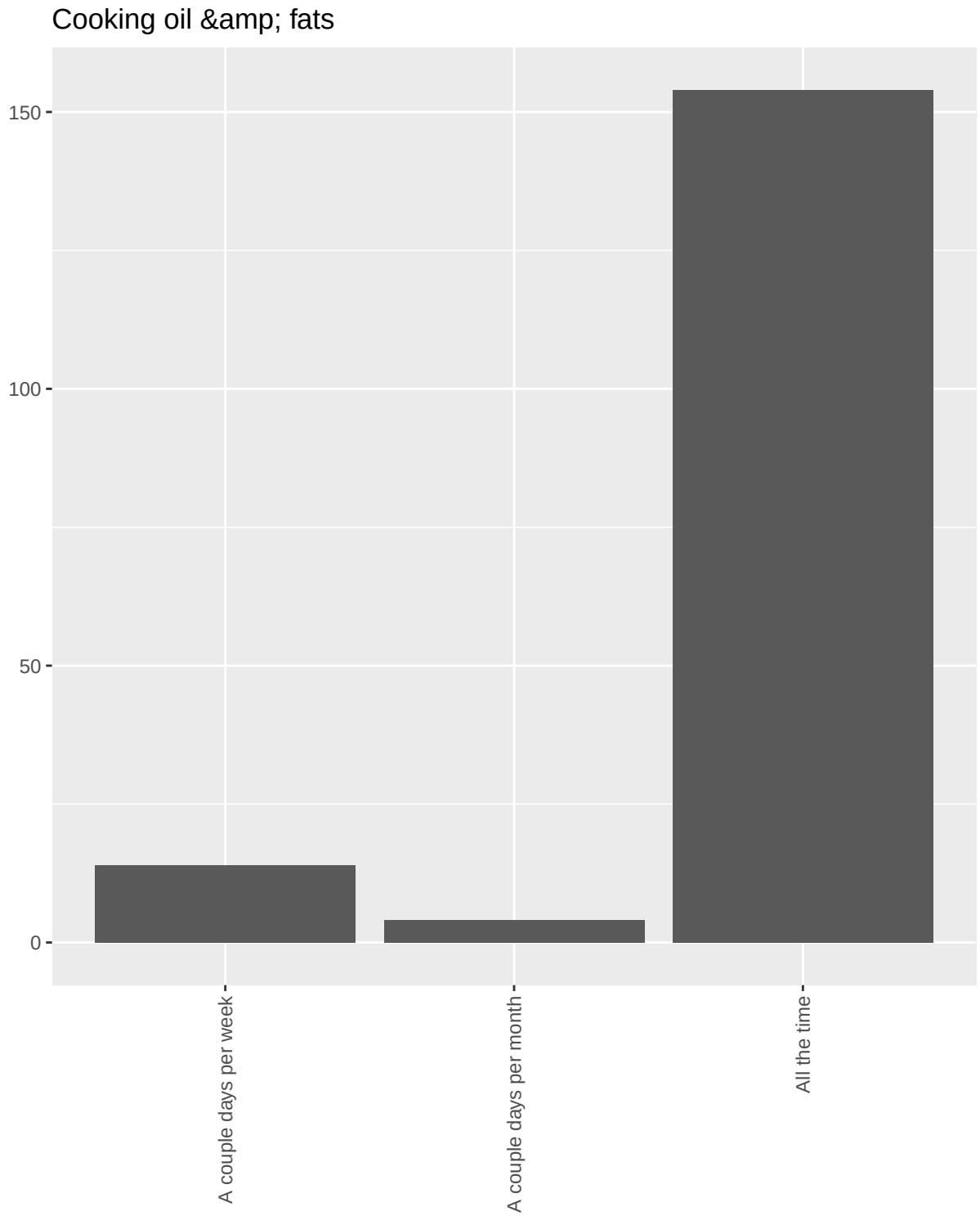

Condensed milk with sugar (carnation...)
60
40
20
0
A couple days per week
A couple days per month
All the time

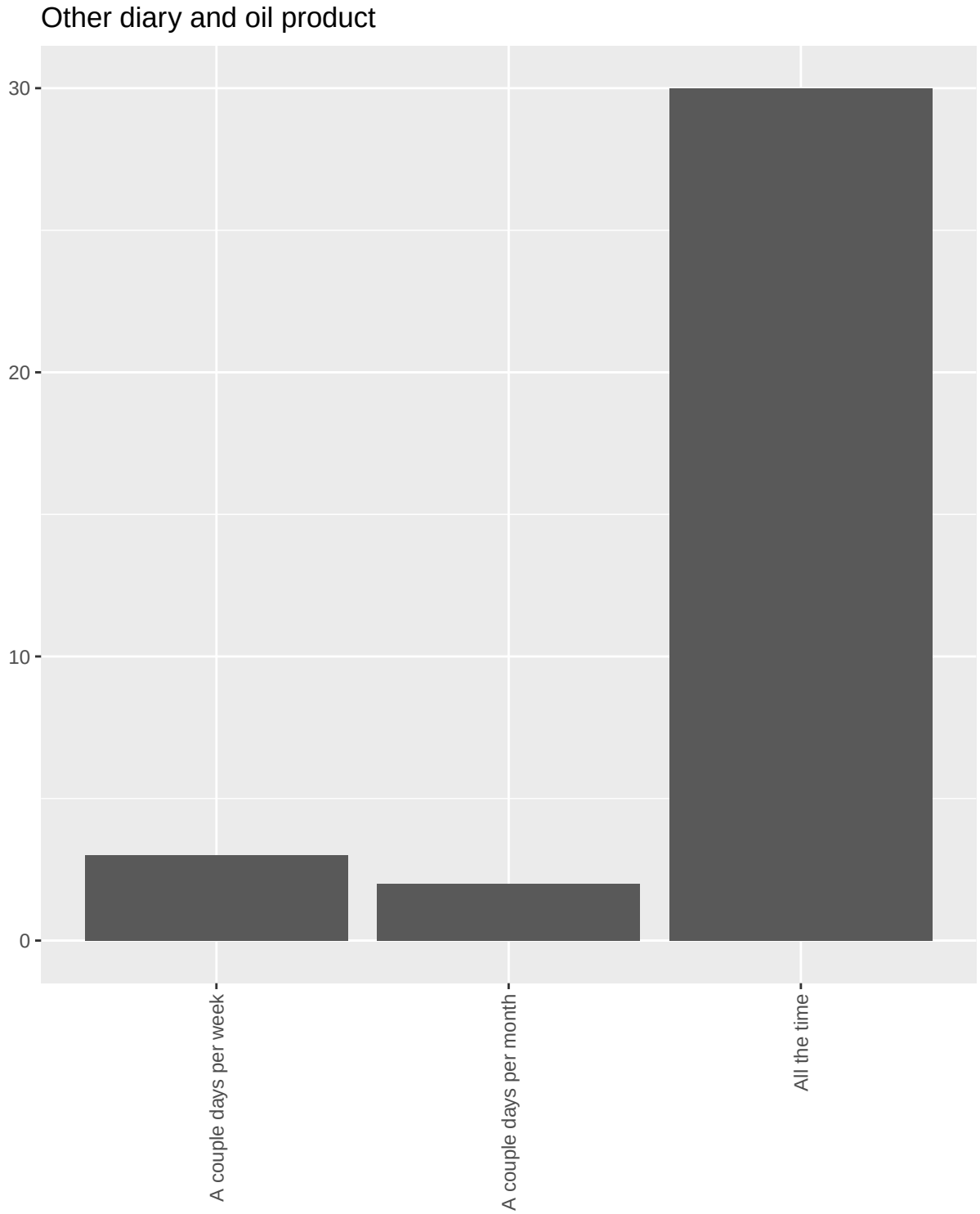

Powdered milk (sunshine, anchor...)
75
50
25
0
A couple days per week
A couple days per month
All the time

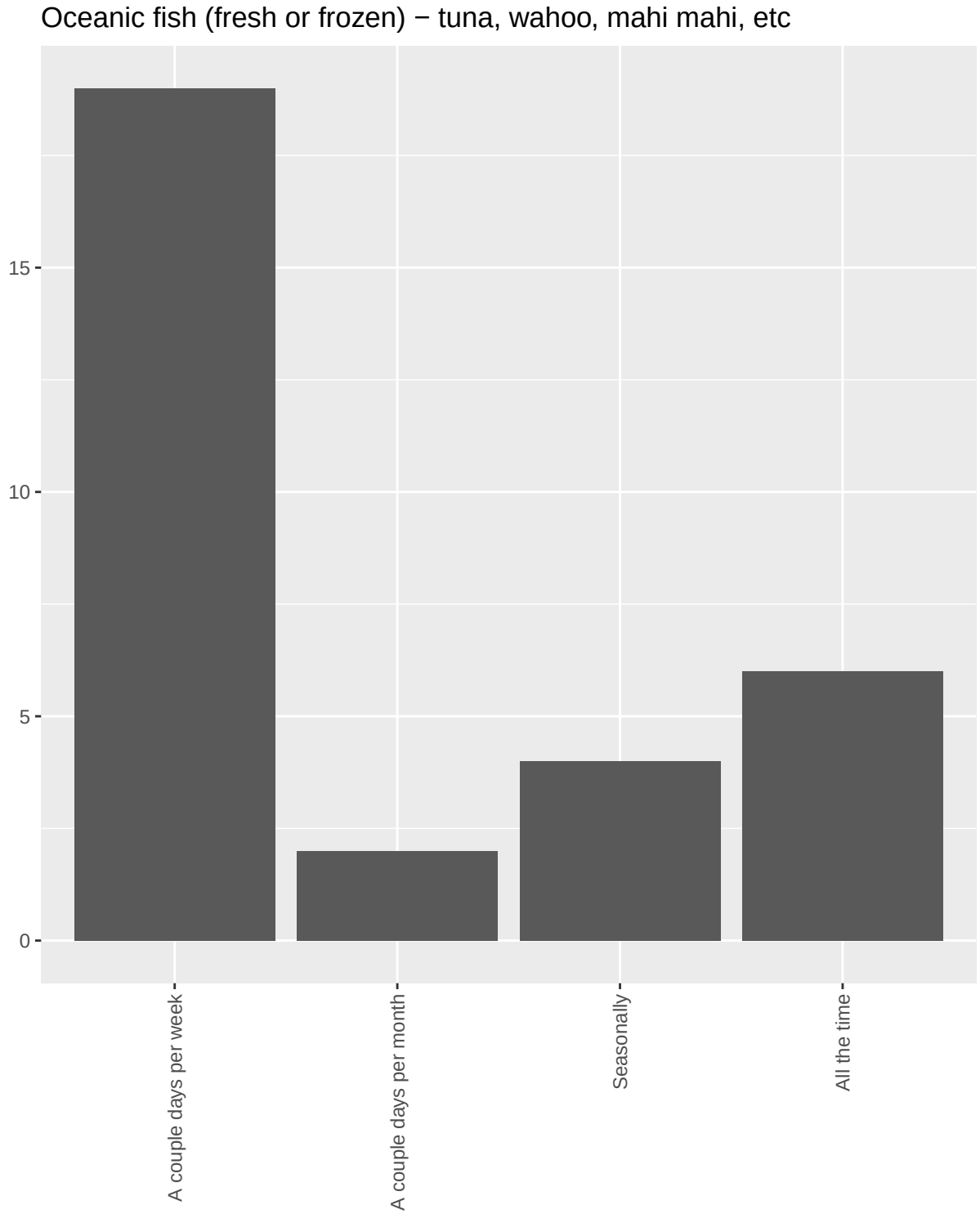

Butter
60
40
20
0
A couple days per week
A couple days per month
All the time

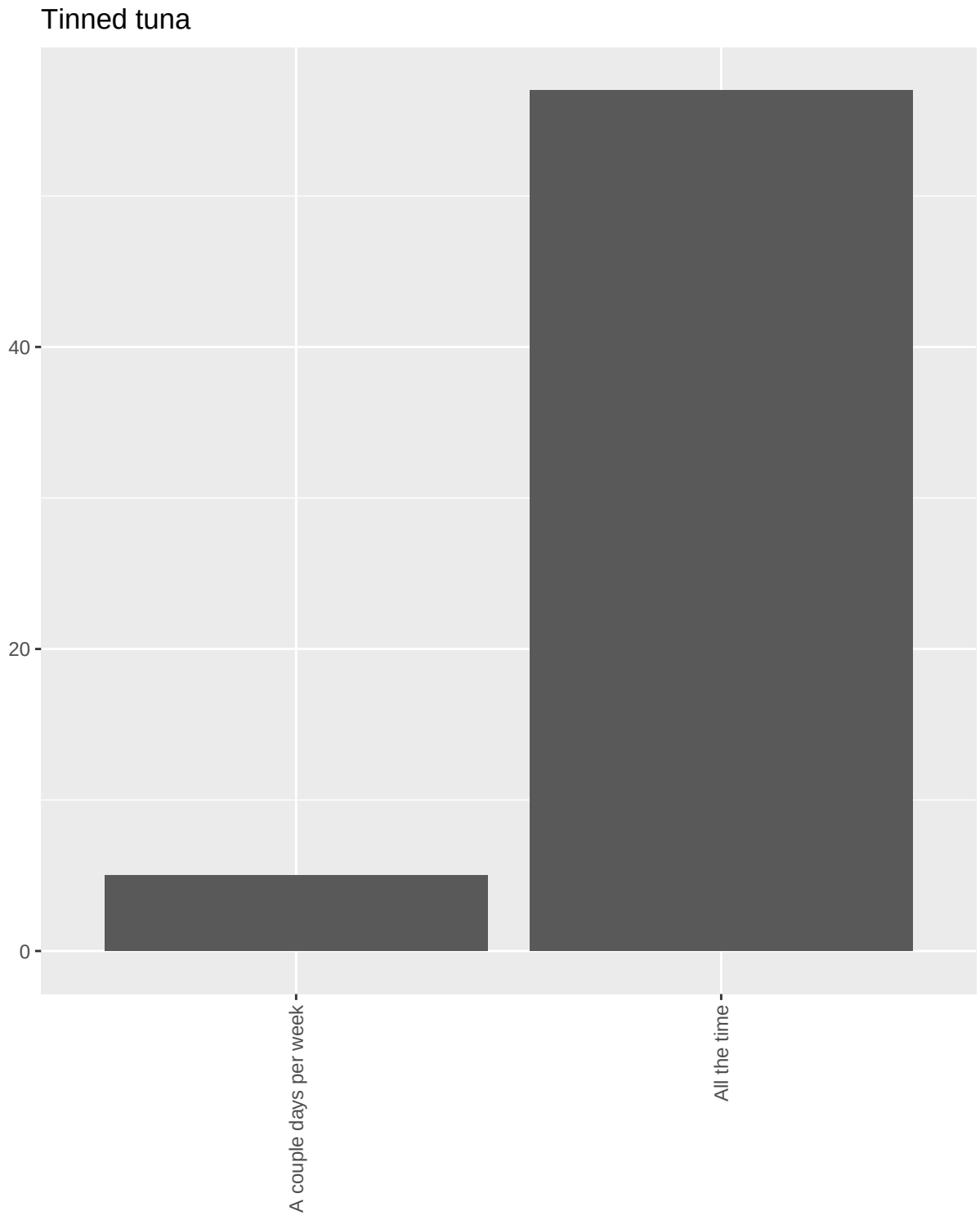

Margarine
25
20
15
10
5
0
A couple days per week
All the time

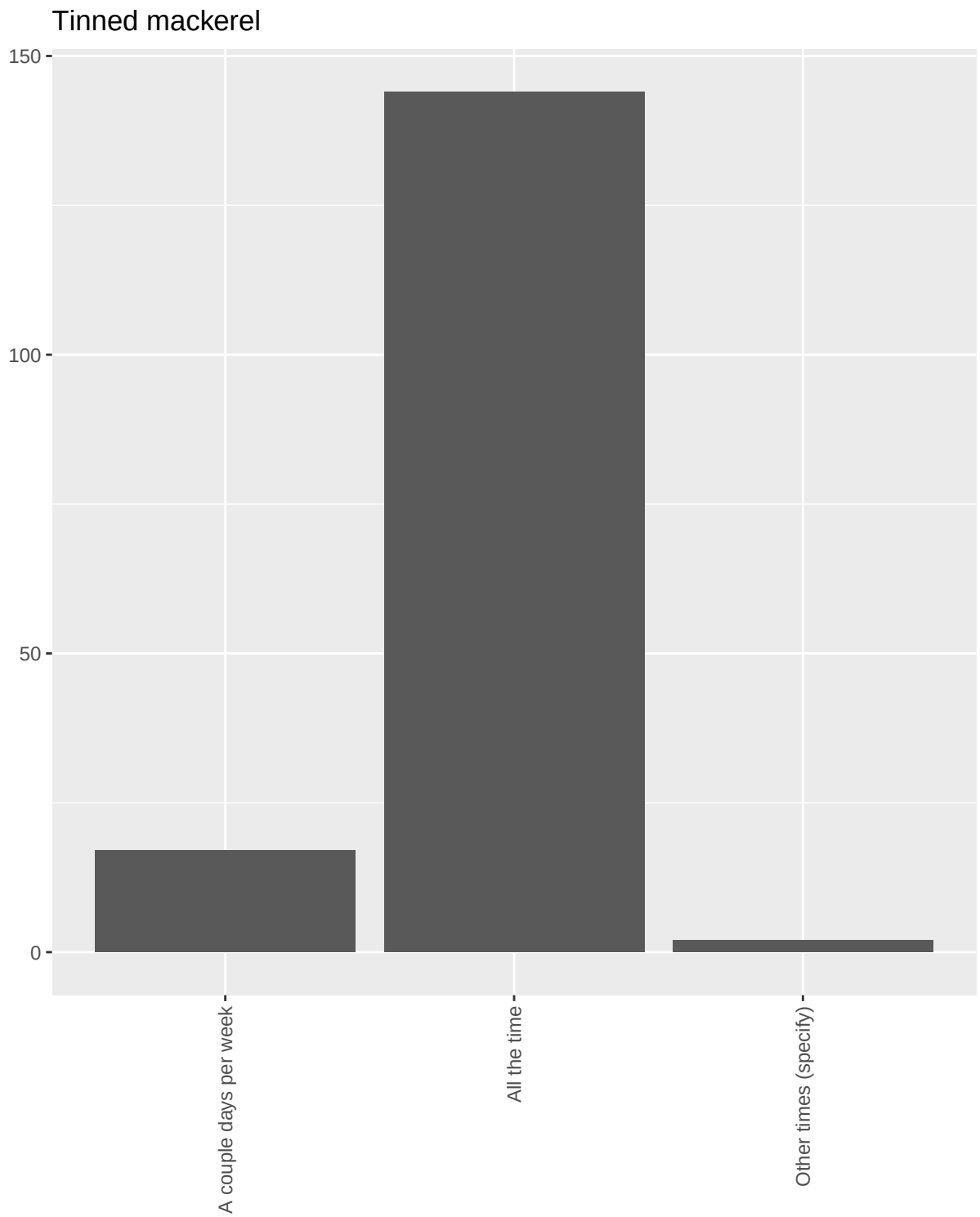

Peanut butter
40
30
20
10
0
A couple days per week
A couple days per month
All the time

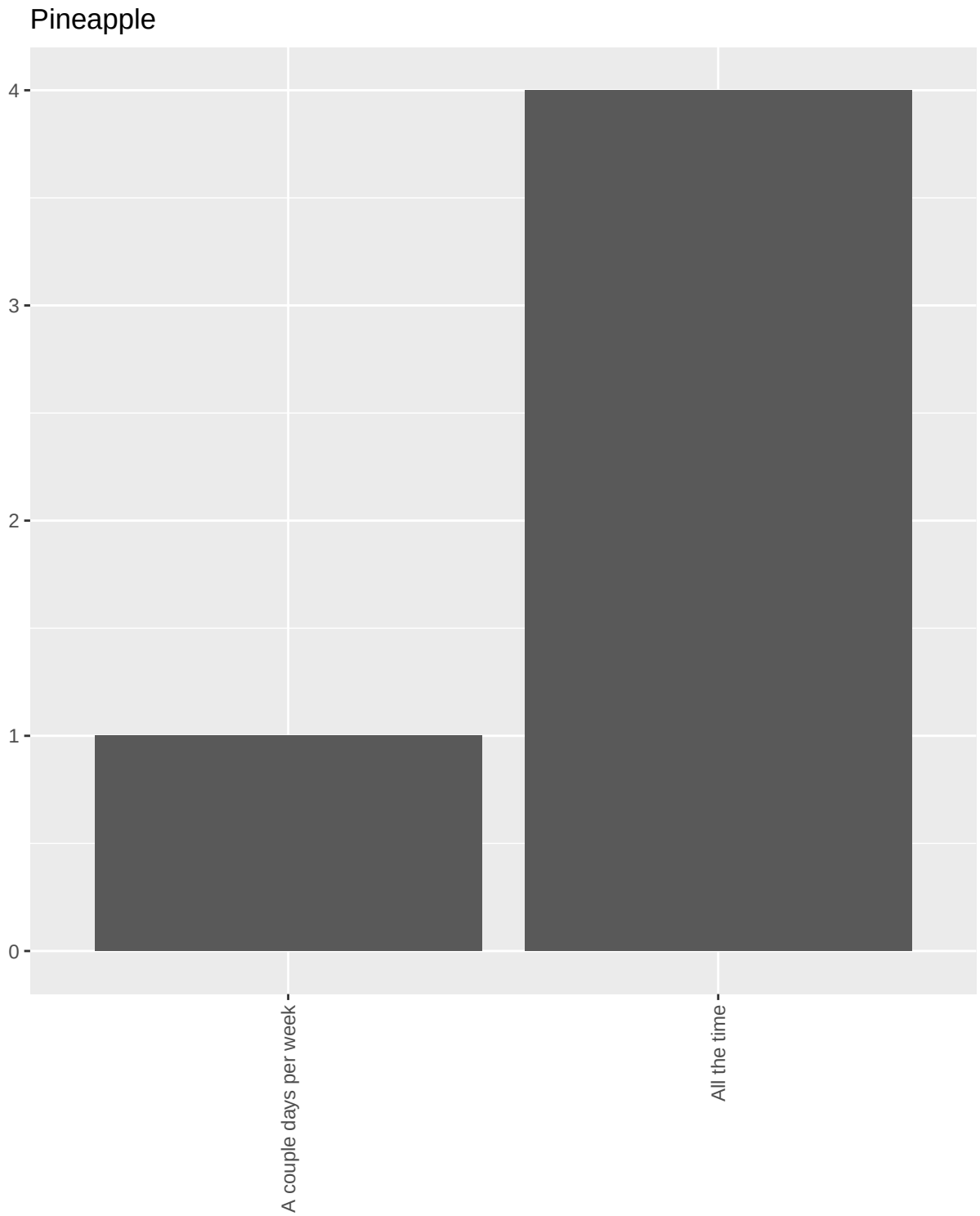

Cooking oil & fats
150
100
50
0
A couple days per week
A couple days per month
All the time

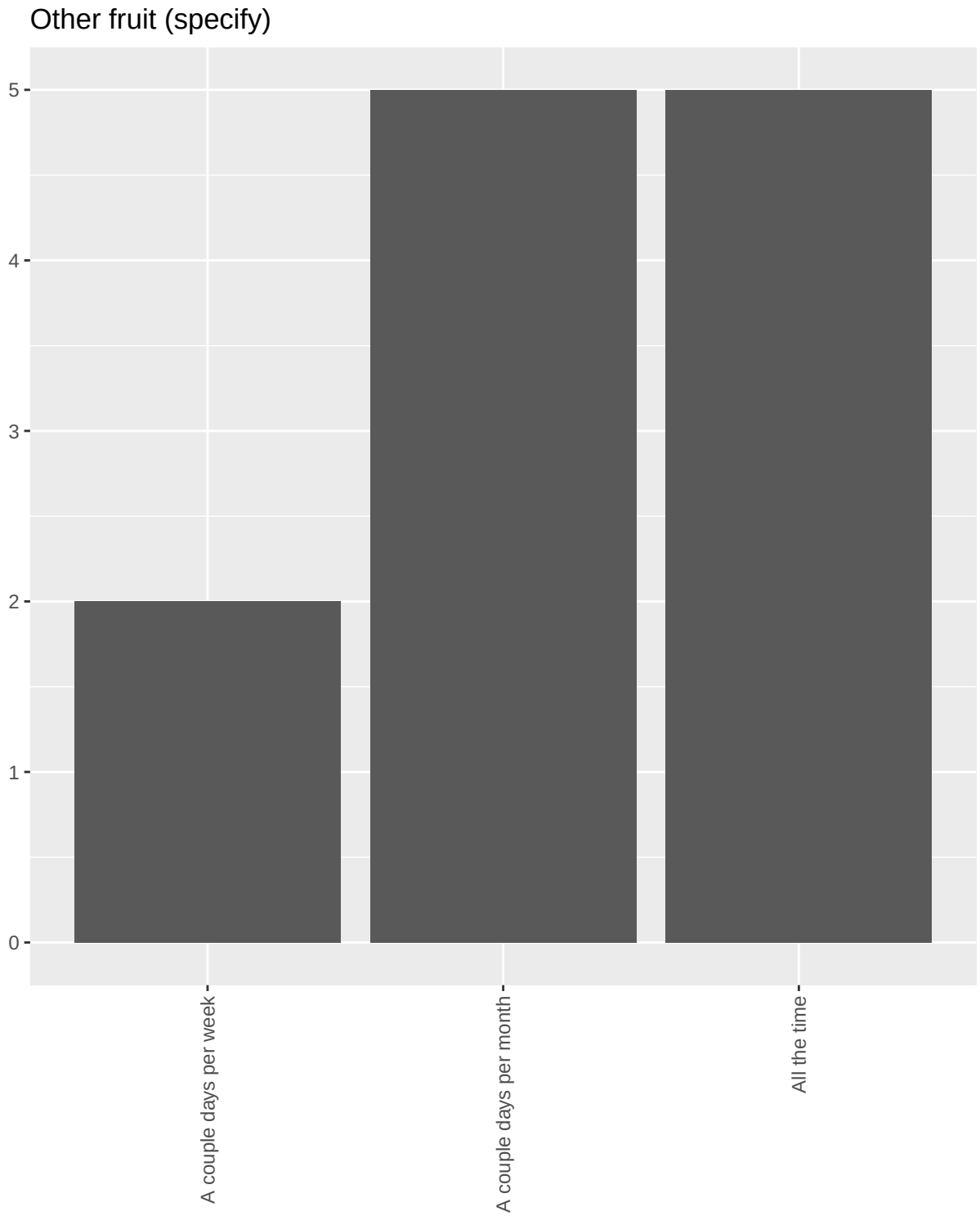

Other diary and oil product
30
20
10
0
A couple days per week
A couple days per month
All the time

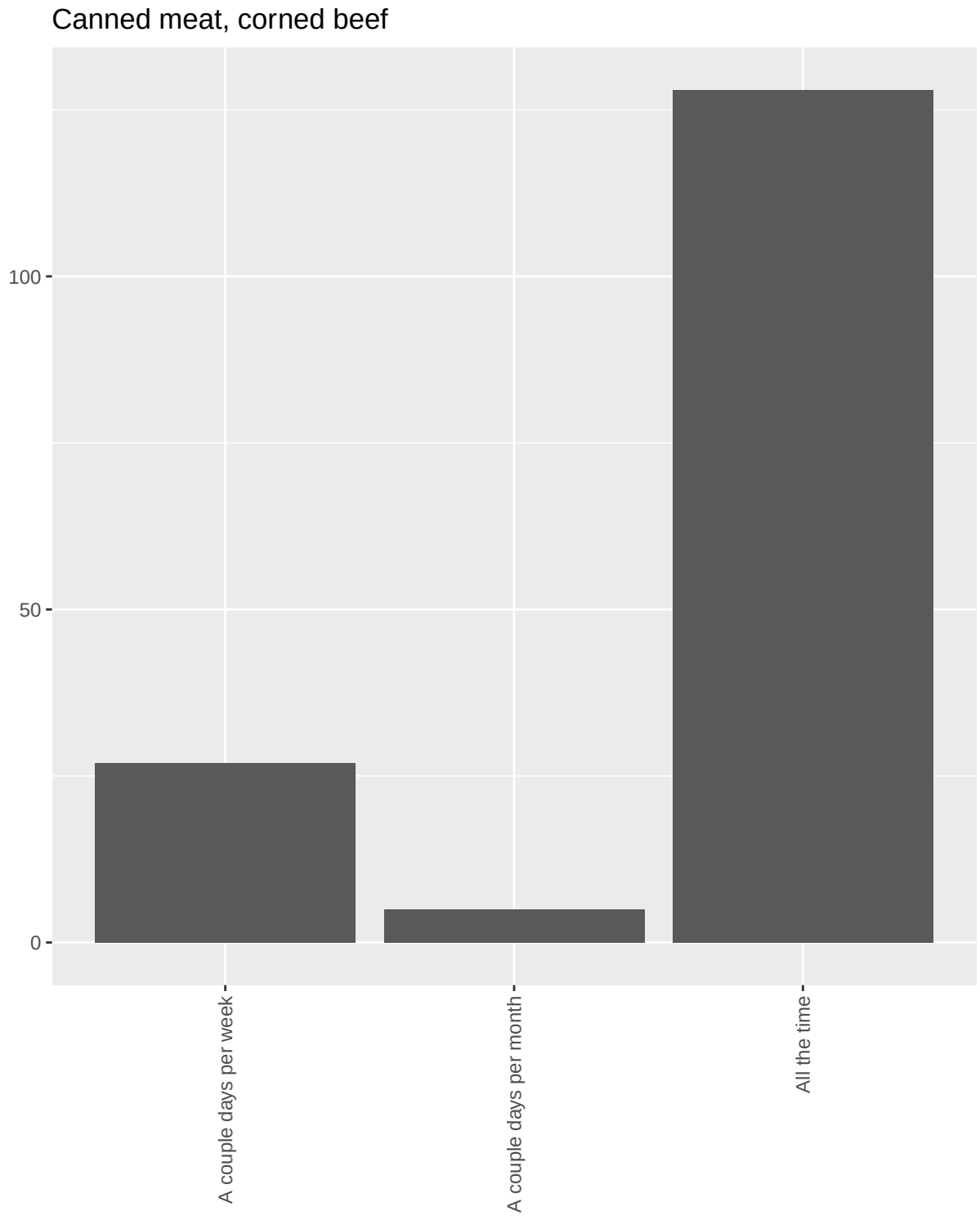

Oceanic fish (fresh or frozen) − tuna, wahoo, mahi mahi, etc
15
10
5
0
A couple days per week
A couple days per month
Seasonally
All the time

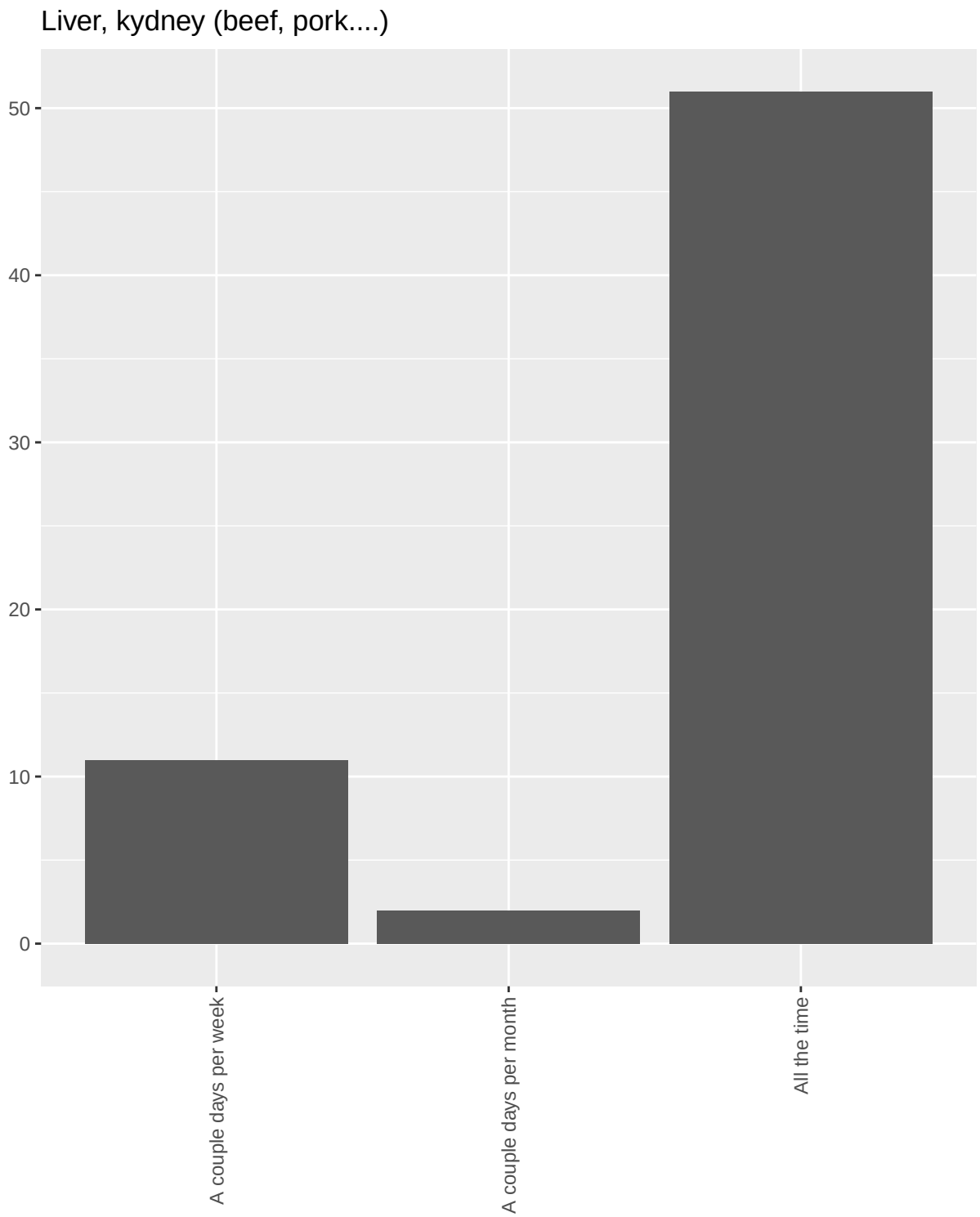

Tinned tuna
40
20
0
A couple days per week
All the time

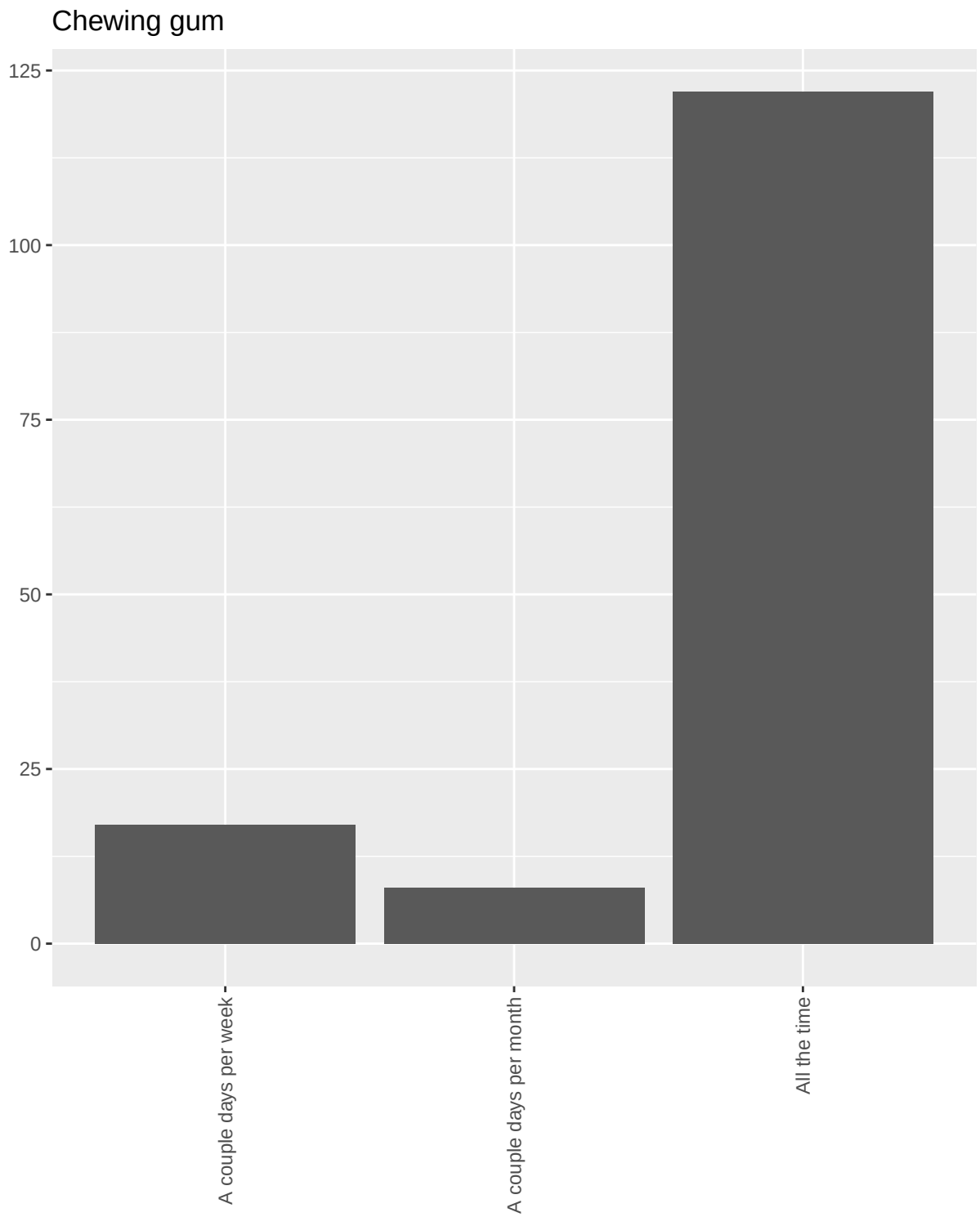

Tinned mackerel
150
100
50
0
A couple days per week
All the time
Other times (specify)

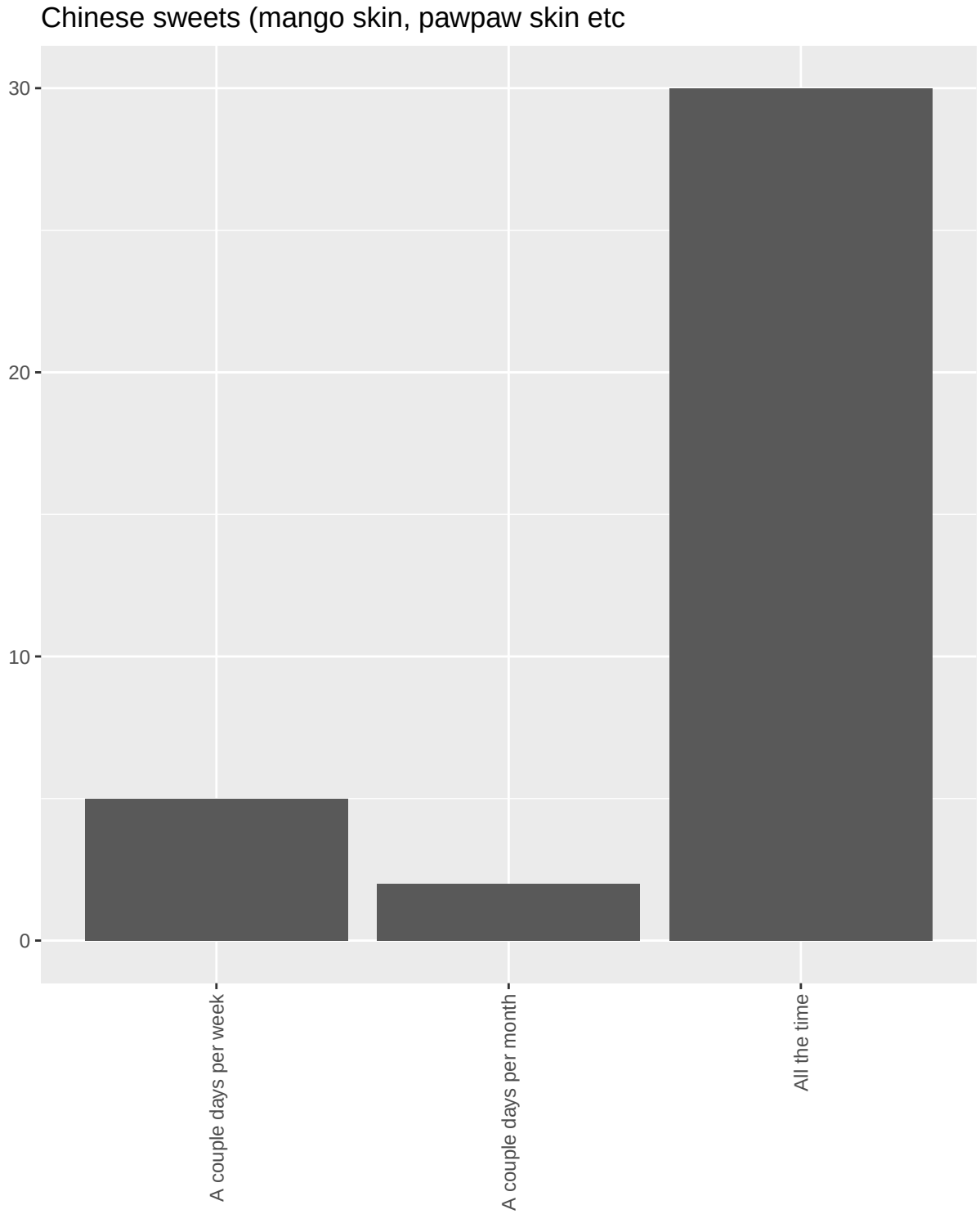

Pineapple
4
3
2
1
0
A couple days per week
All the time

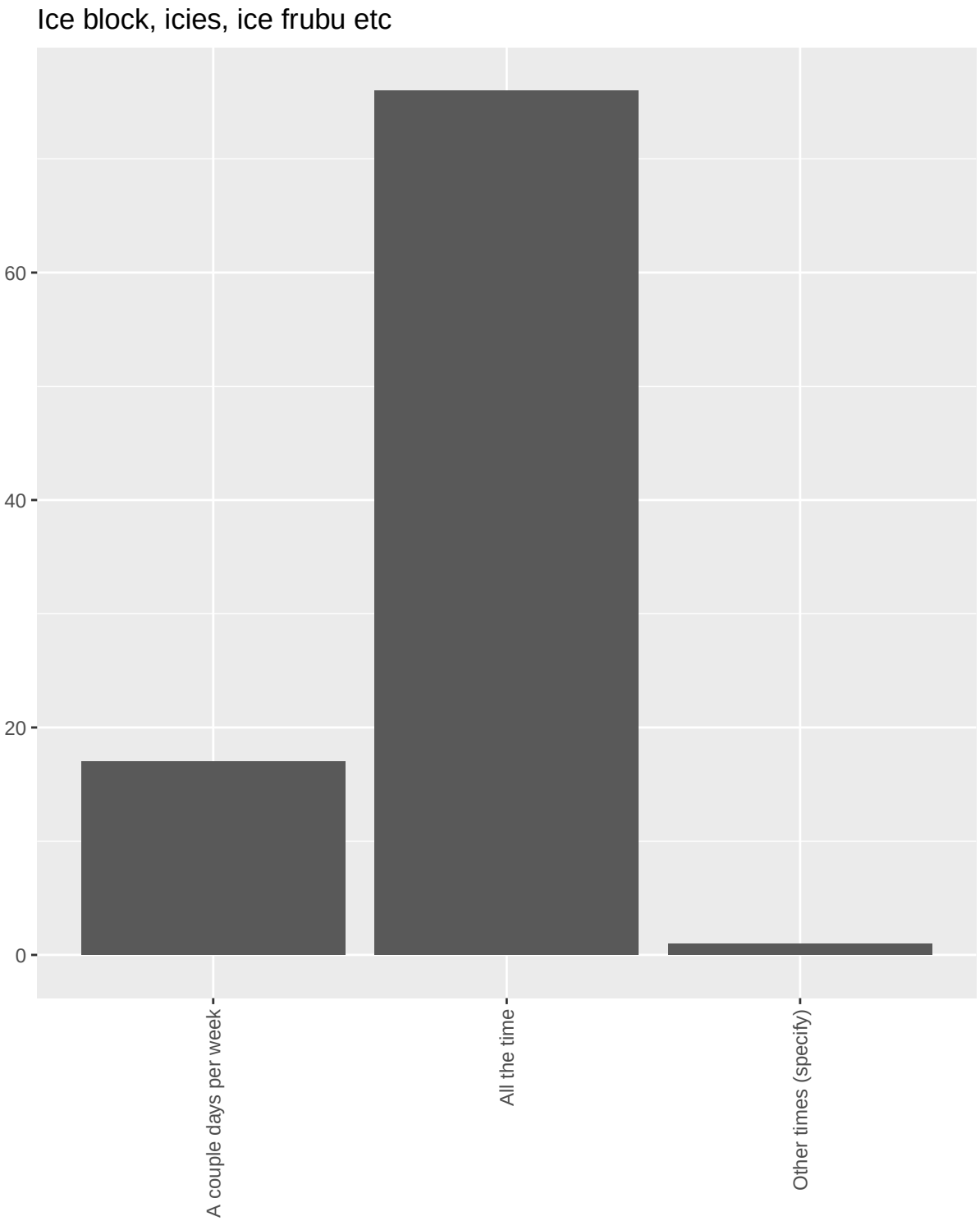

Other fruit (specify)
5
4
3
2
1
0
A couple days per week
A couple days per month
All the time

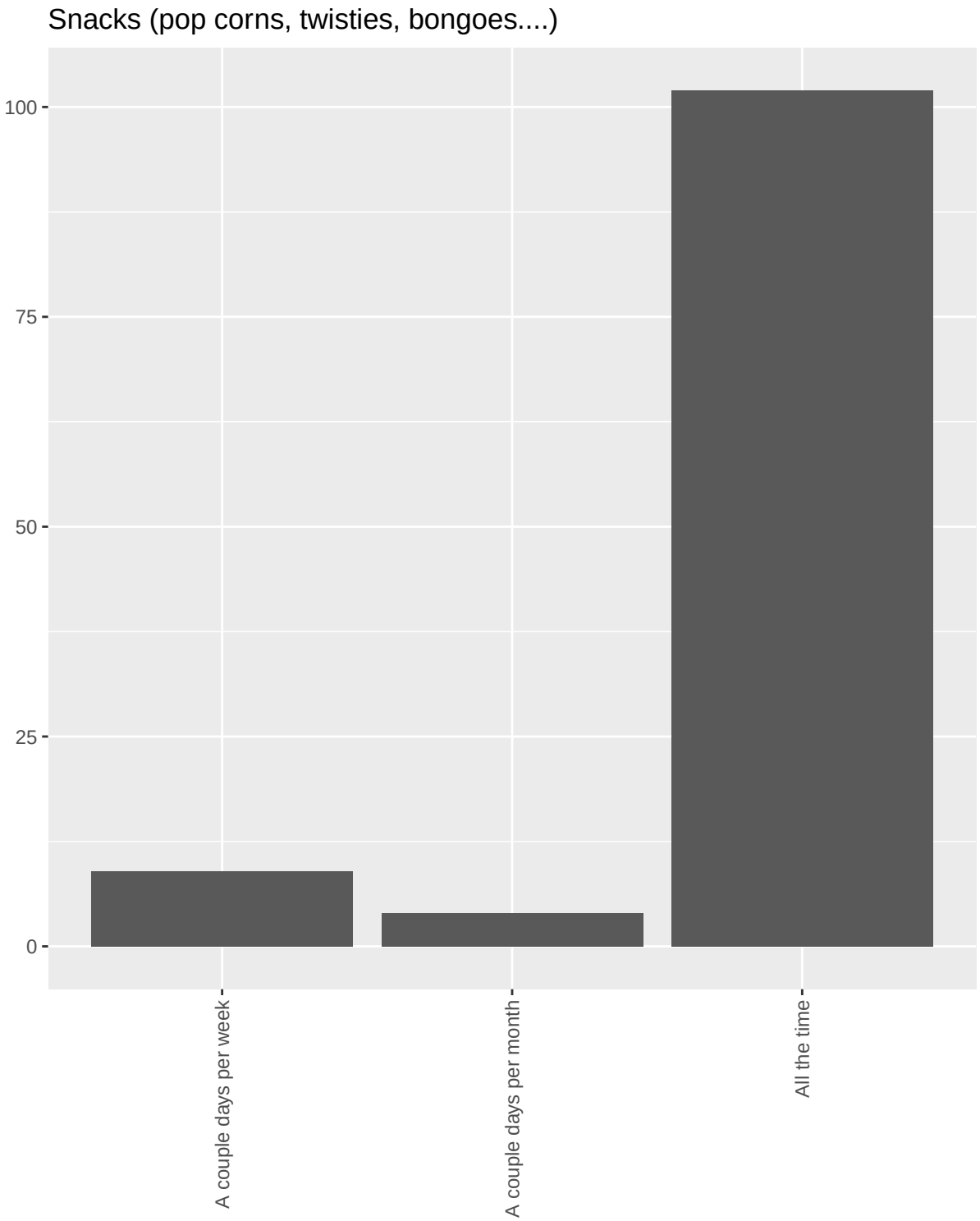

Canned meat, corned beef
100
50
0
A couple days per week
A couple days per month
All the time

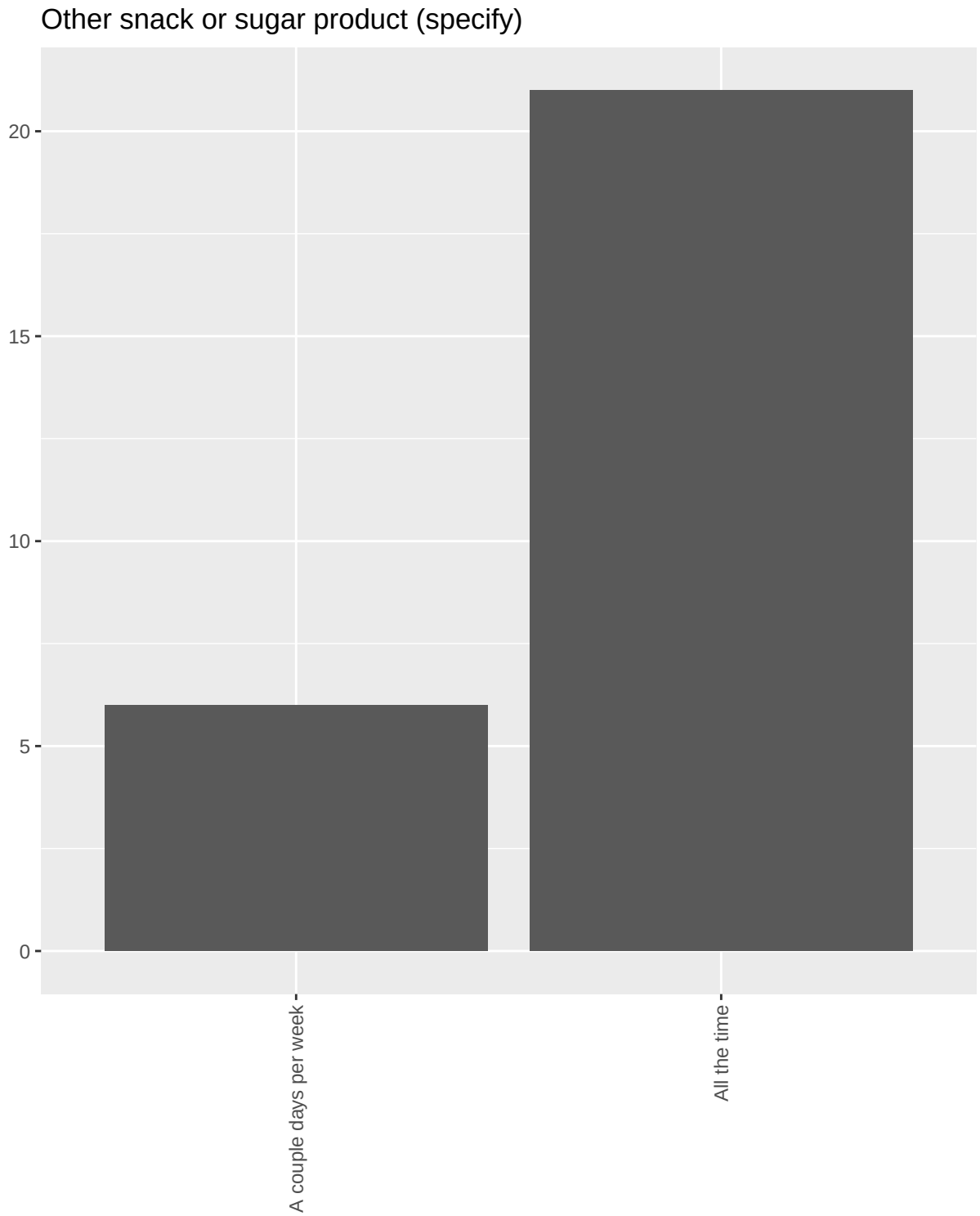

Liver, kydney (beef, pork....)
50
40
30
20
10
0
A couple days per week
A couple days per month
All the time

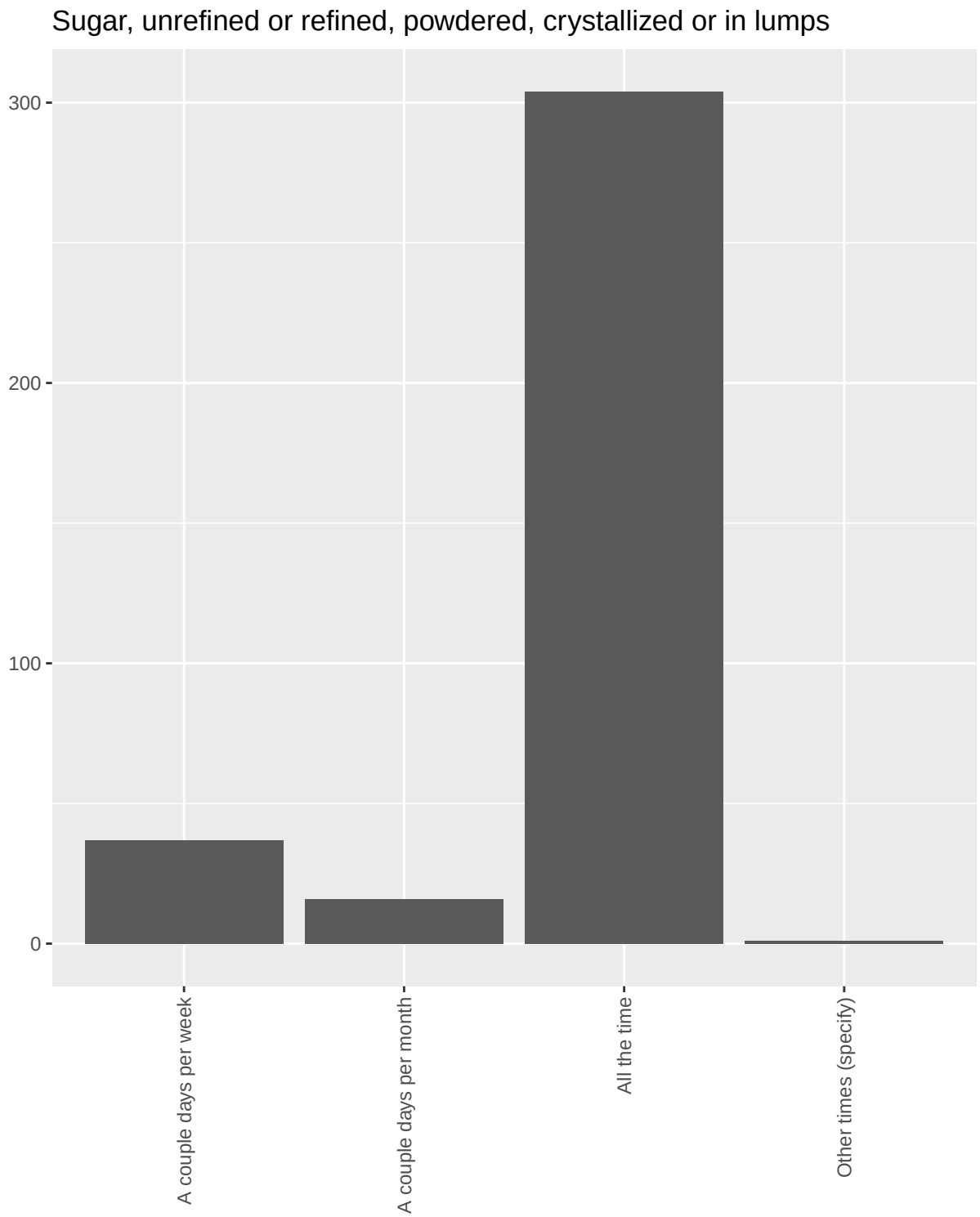

Chewing gum
125
100
75
50
25
0
A couple days per week
A couple days per month
All the time

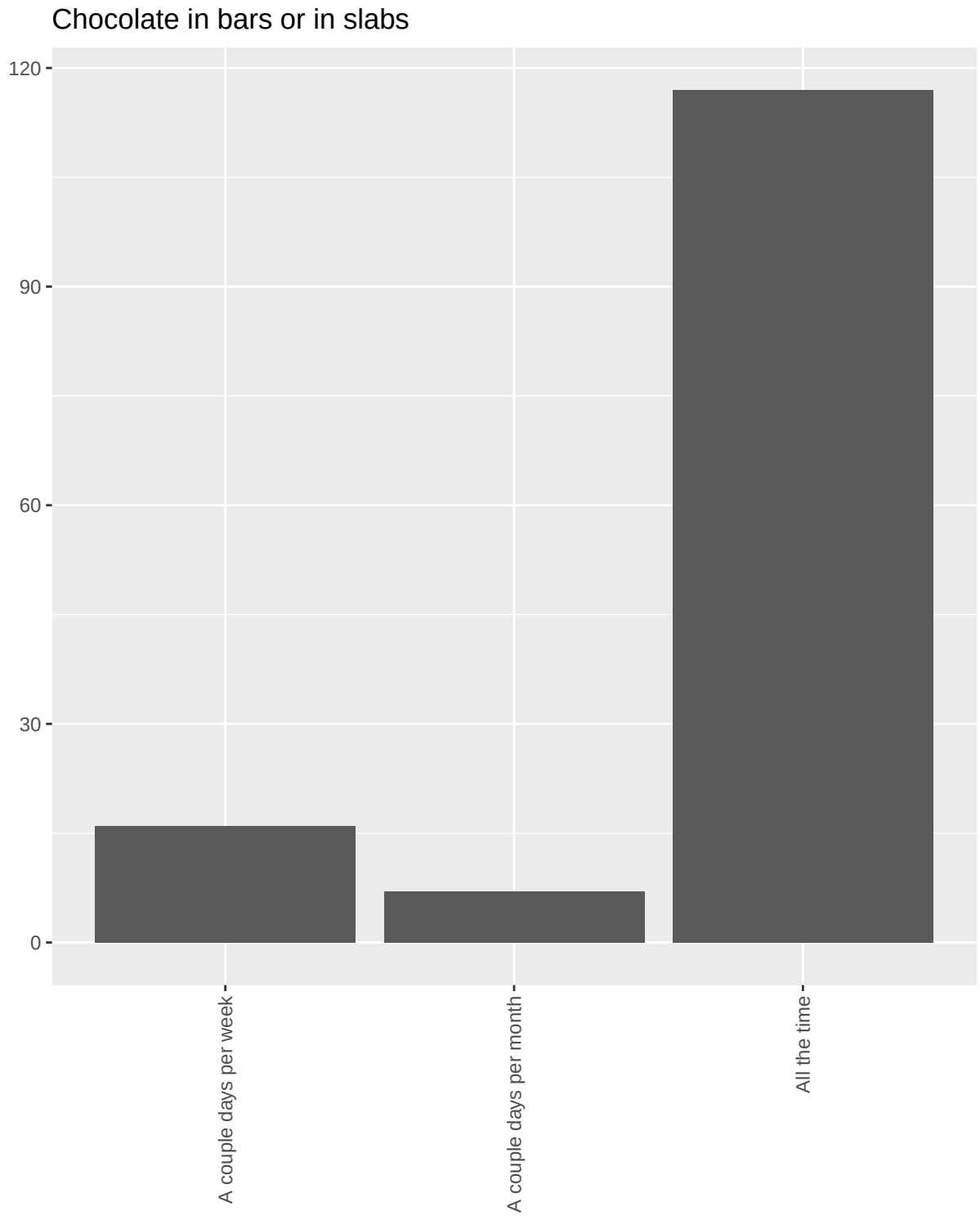

Chinese sweets (mango skin, pawpaw skin etc
30
20
10
0
A couple days per week
A couple days per month
All the time

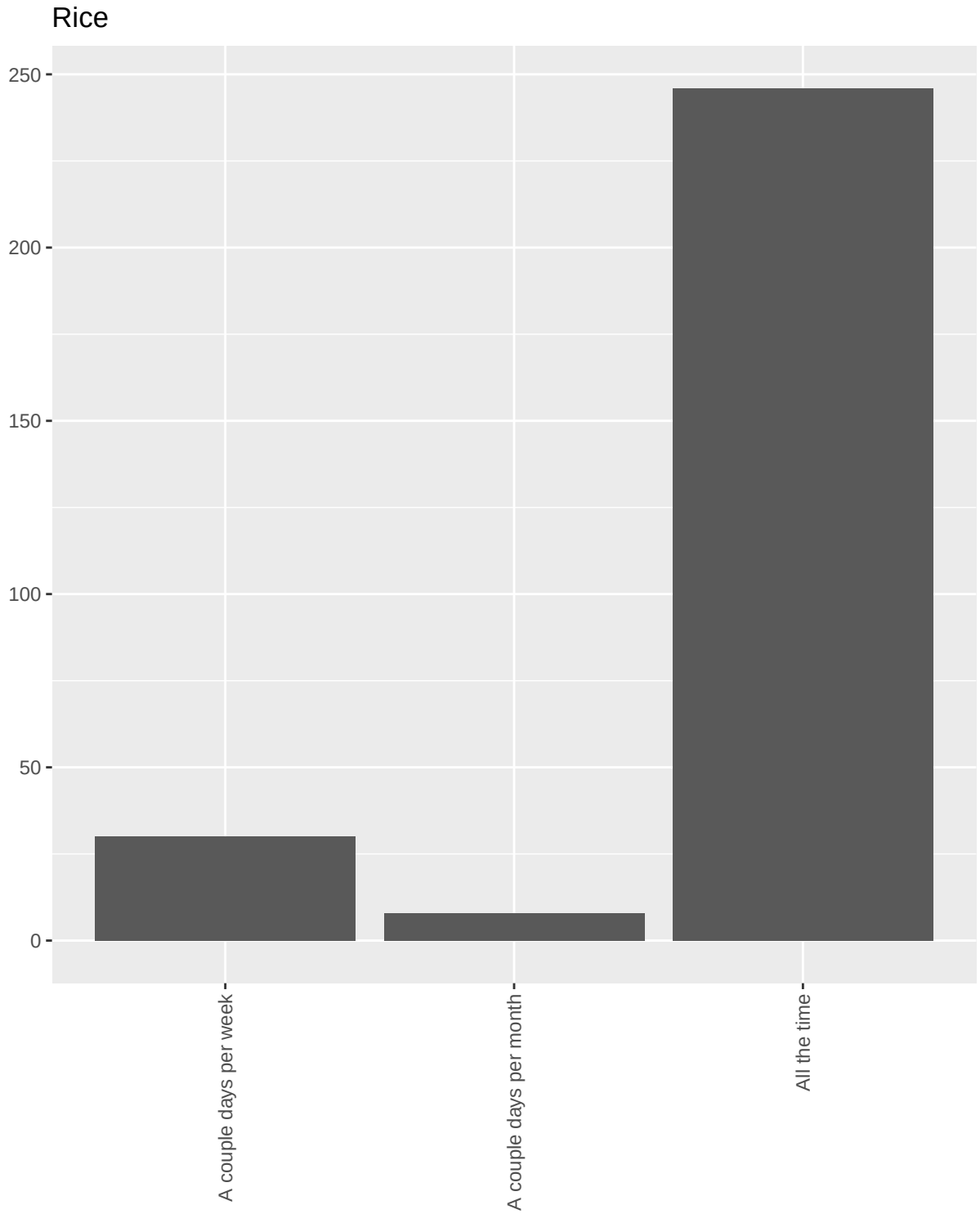

Ice block, icies, ice frubu etc
60
40
20
0
A couple days per week
All the time
Other times (specify)

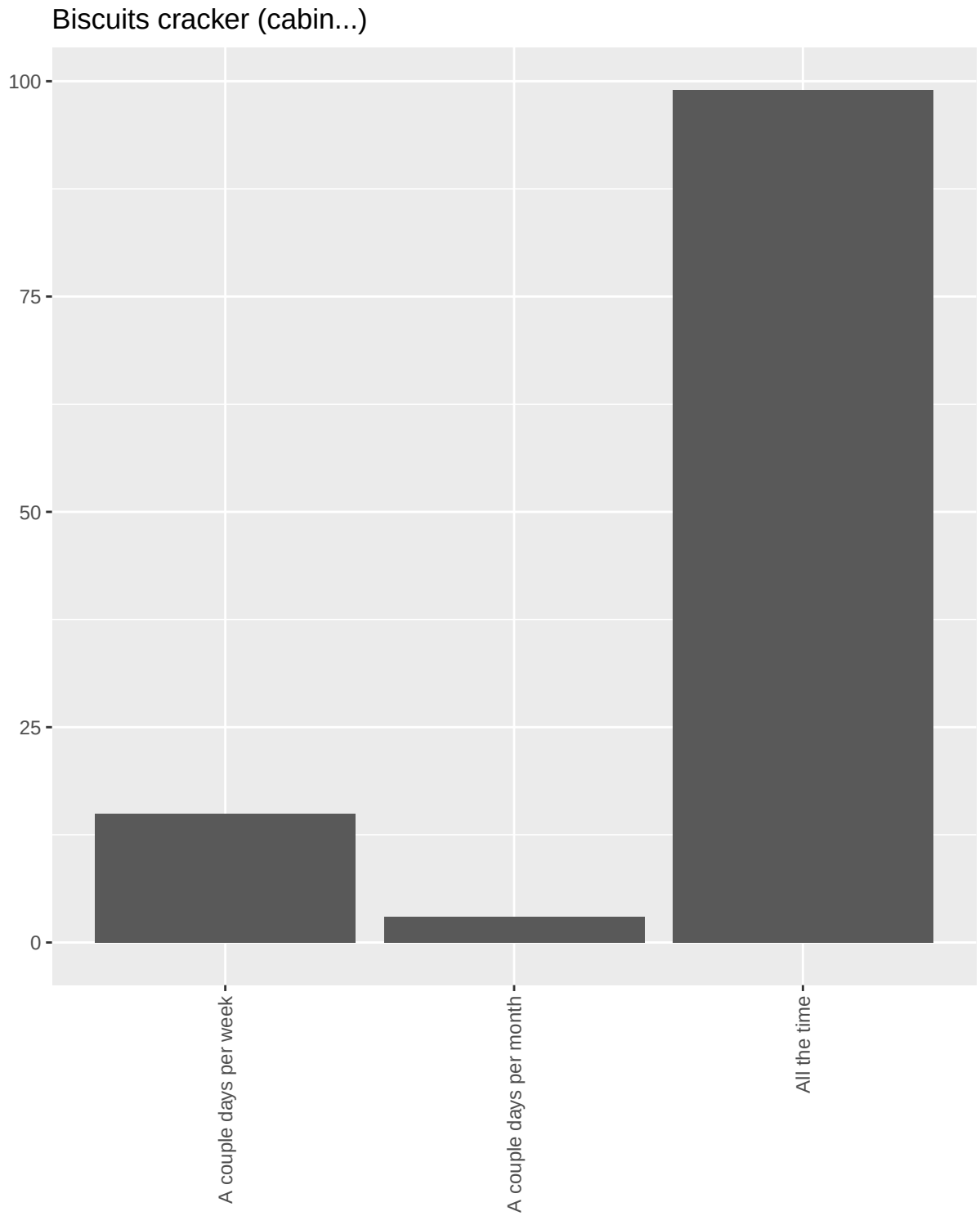

Snacks (pop corns, twisties, bongoes....)
100
75
50
25
0
A couple days per week
A couple days per month
All the time

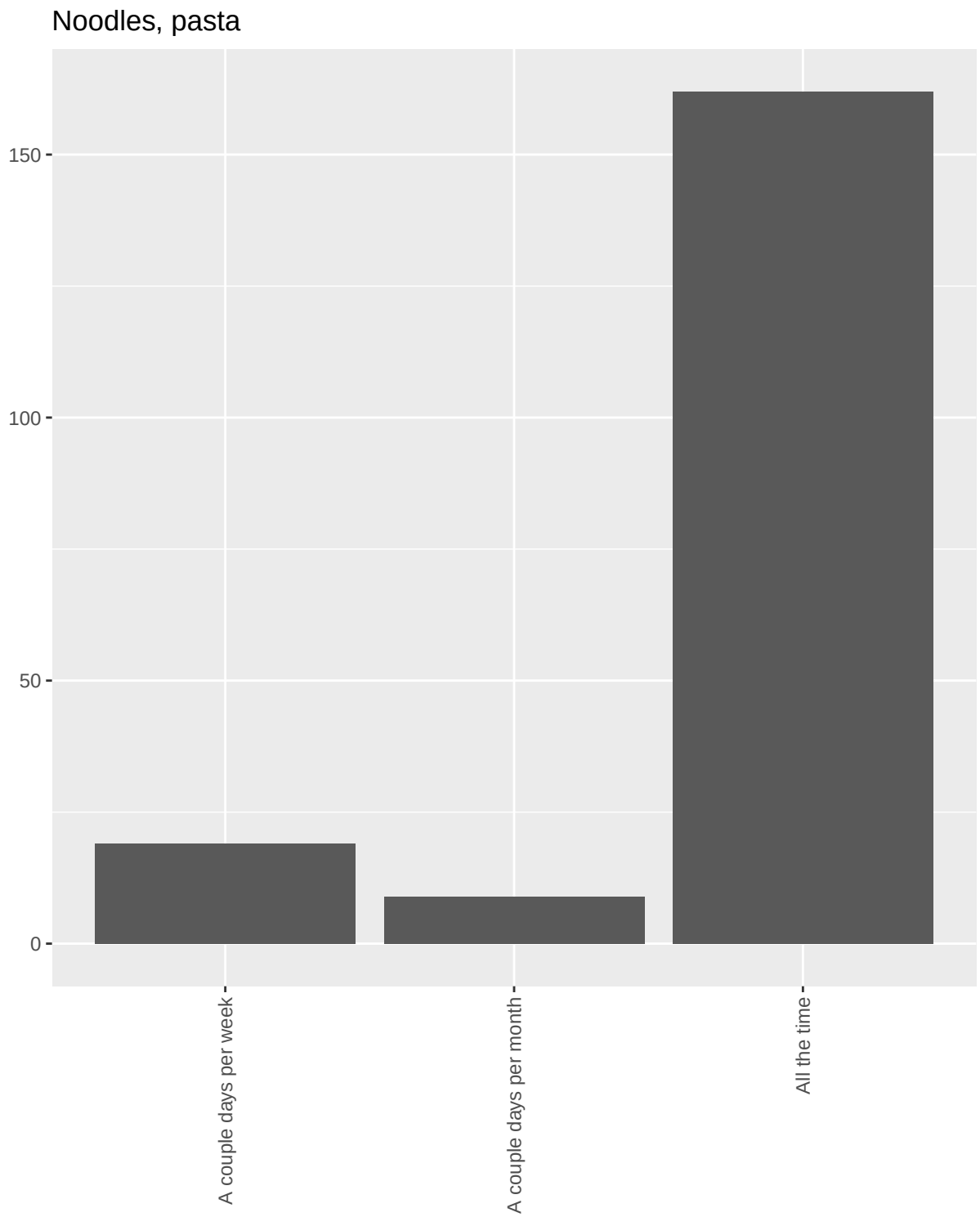

Other snack or sugar product (specify)
20
15
10
5
0
A couple days per week
All the time

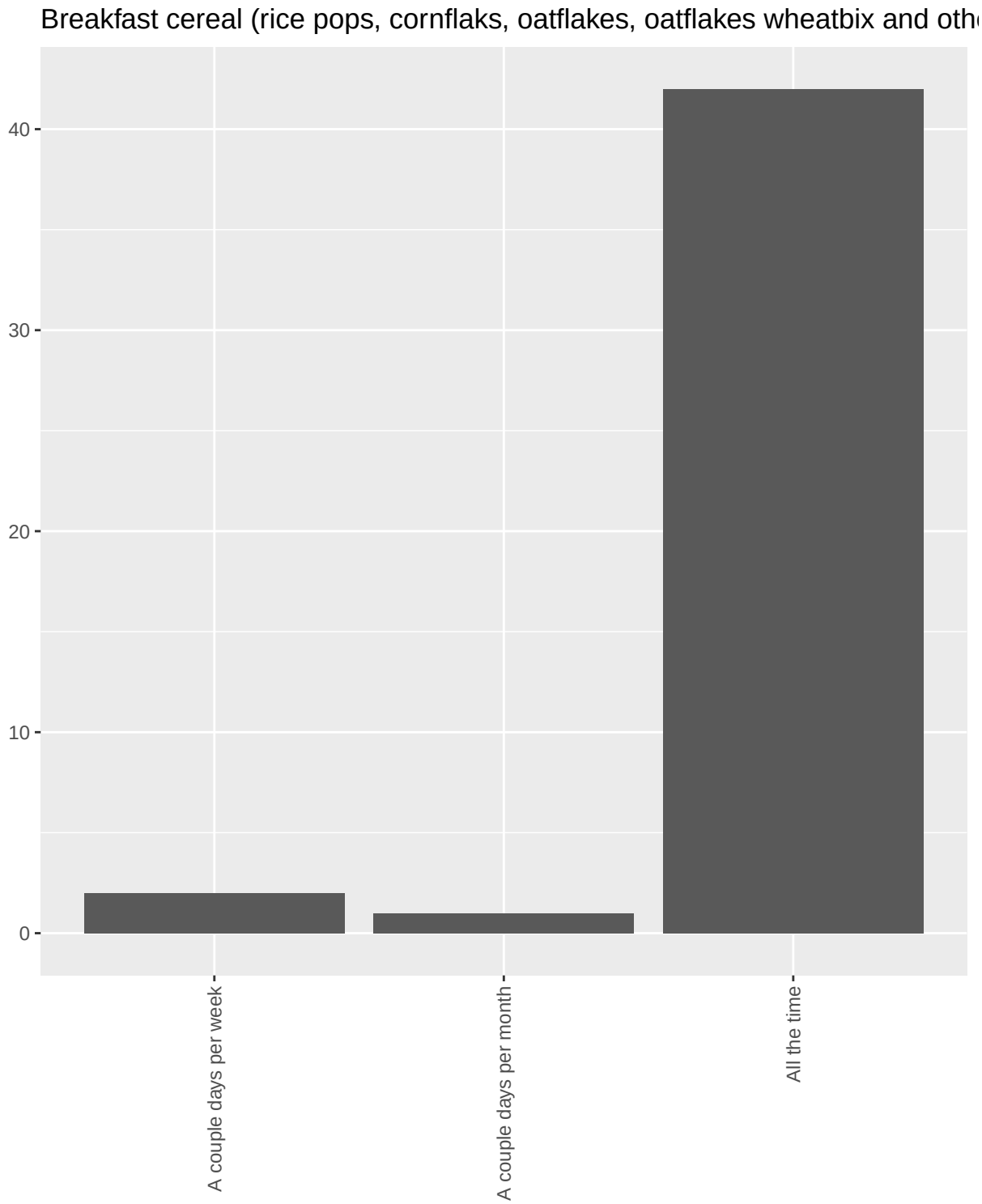

Sugar, unrefined or refined, powdered, crystallized or in lumps
300
200
100
0
A couple days per week
A couple days per month
All the time
Other times (specify)

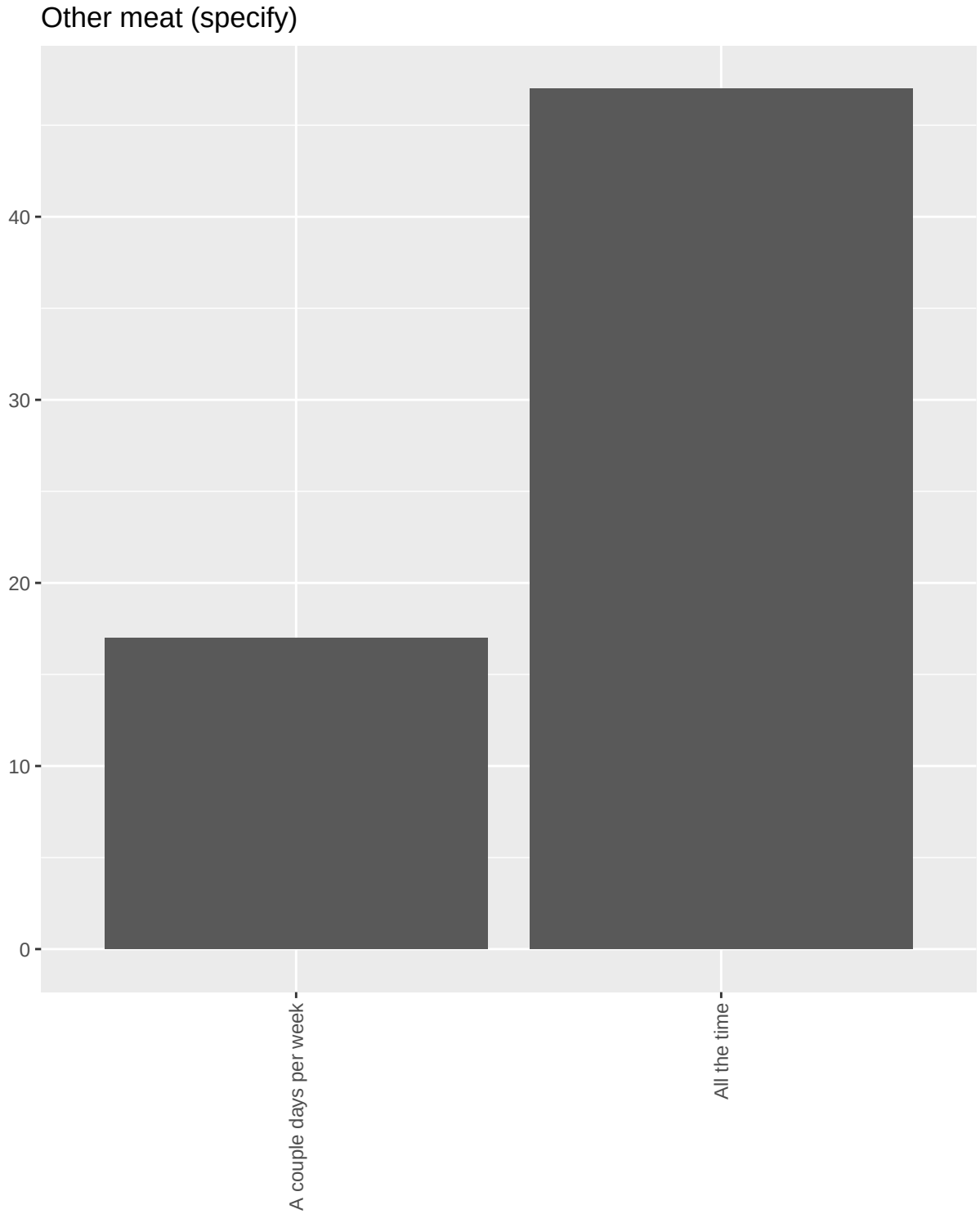

Chocolate in bars or in slabs
120
90
60
30
0
A couple days per week
A couple days per month
All the time

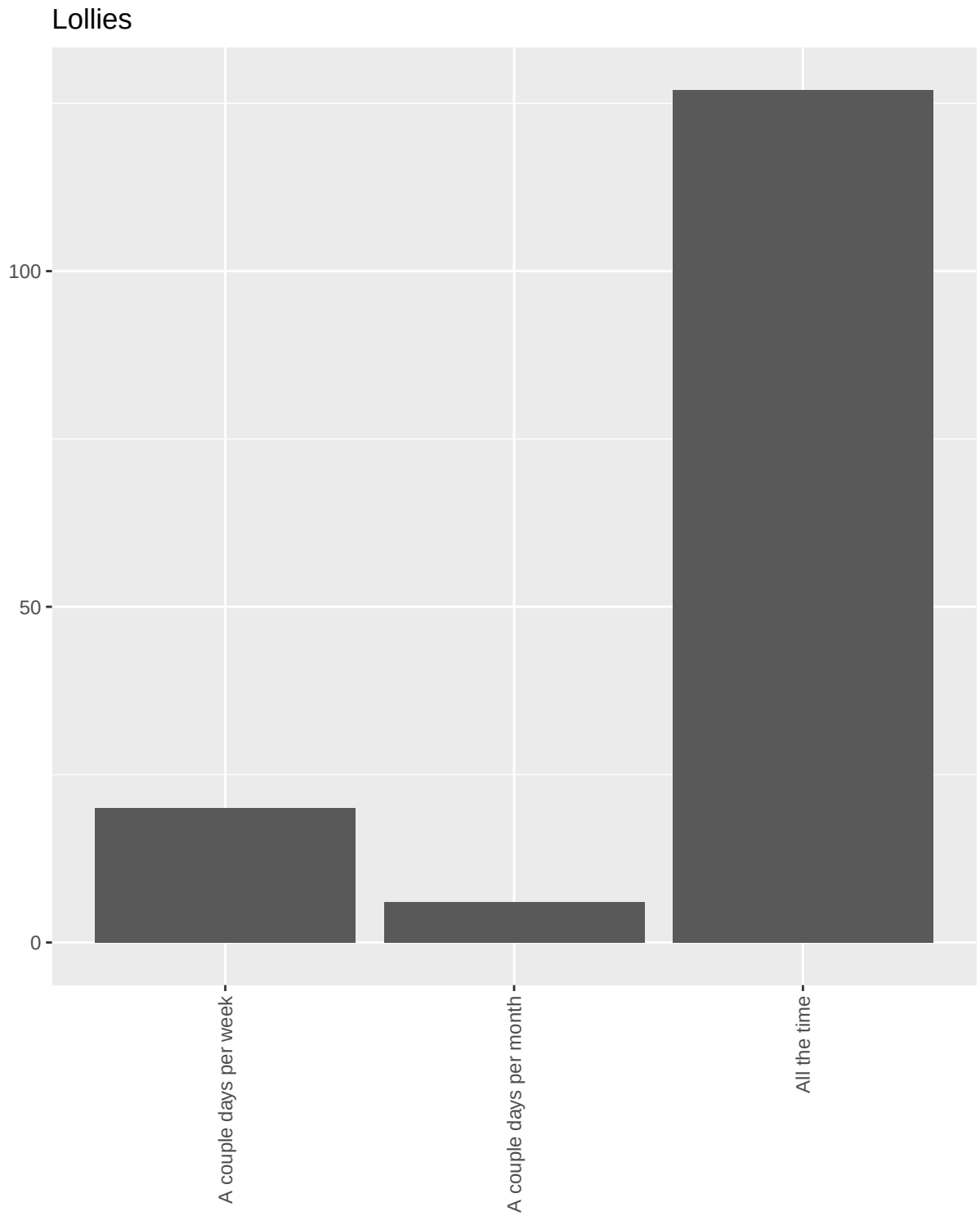

Rice
250
200
150
100
50
0
A couple days per week
A couple days per month
All the time

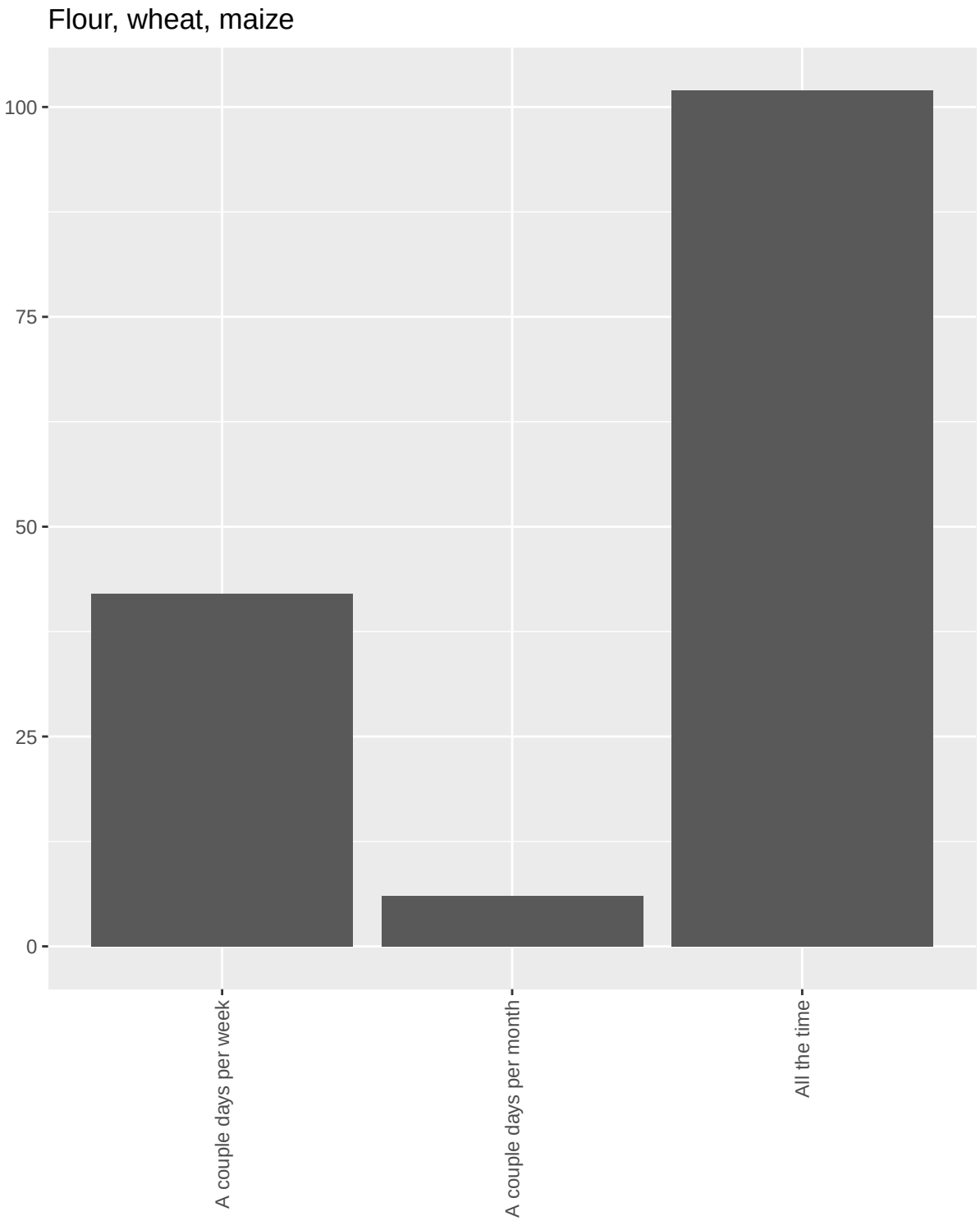

Biscuits cracker (cabin...)
100
75
50
25
0
A couple days per week
A couple days per month
All the time

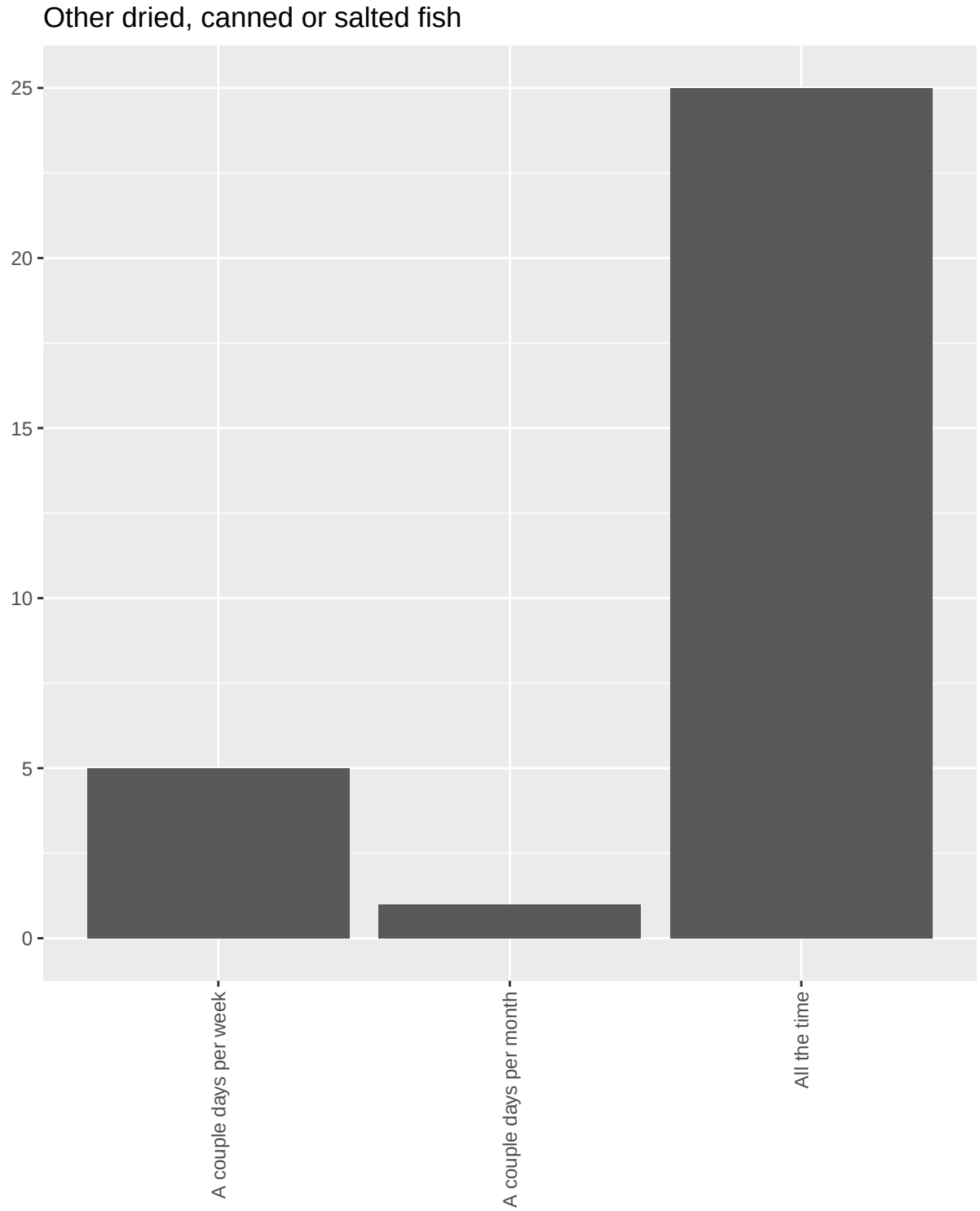

Noodles, pasta
150
100
50
0
A couple days per week
A couple days per month
All the time

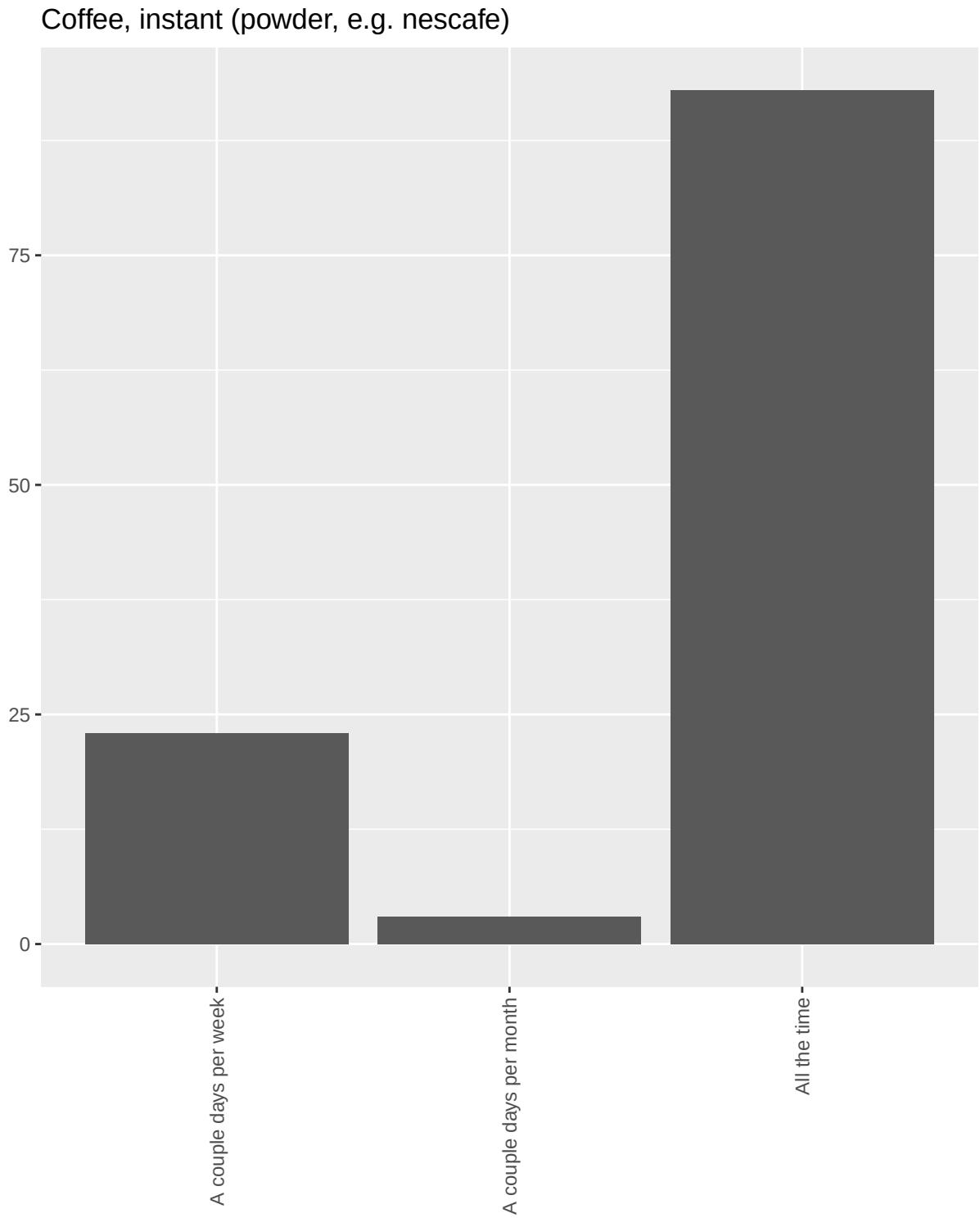

Breakfast cereal (rice pops, cornflaks, oatflakes, oatflakes wheatbix and oth
40
30
20
10
0
A couple days per week
A couple days per month
All the time

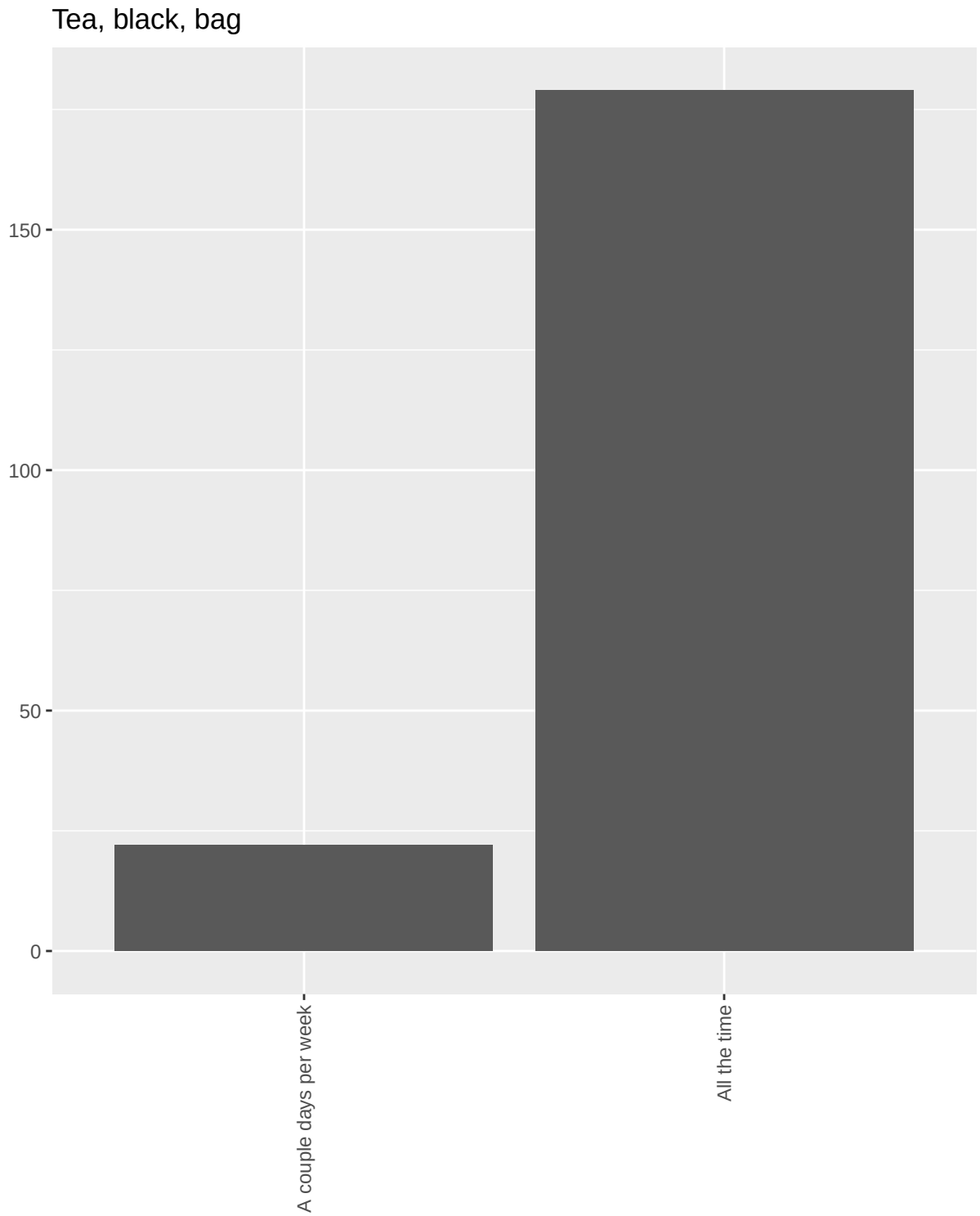

Other meat (specify)
40
30
20
10
0
A couple days per week
All the time

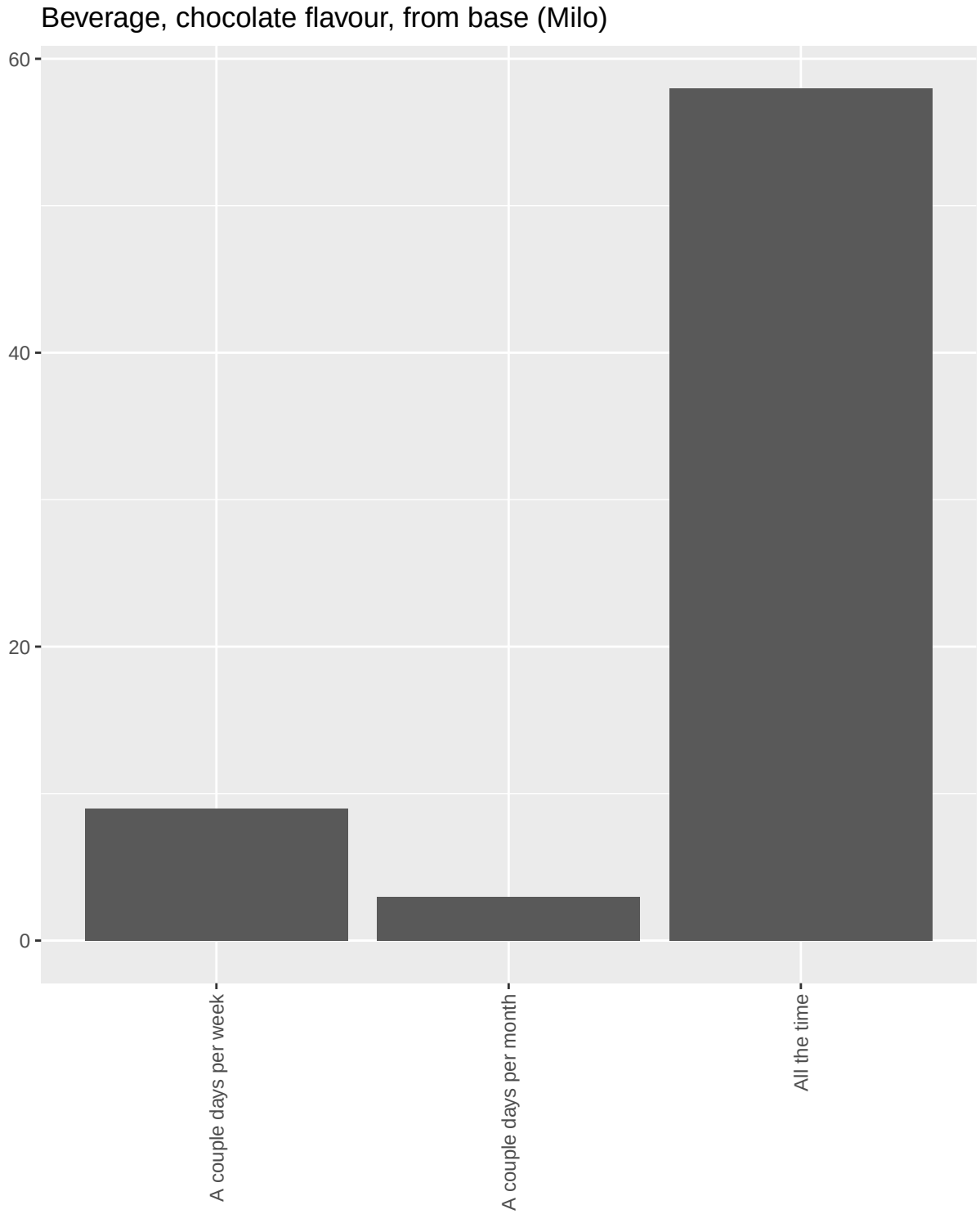

Lollies
100
50
0
A couple days per week
A couple days per month
All the time

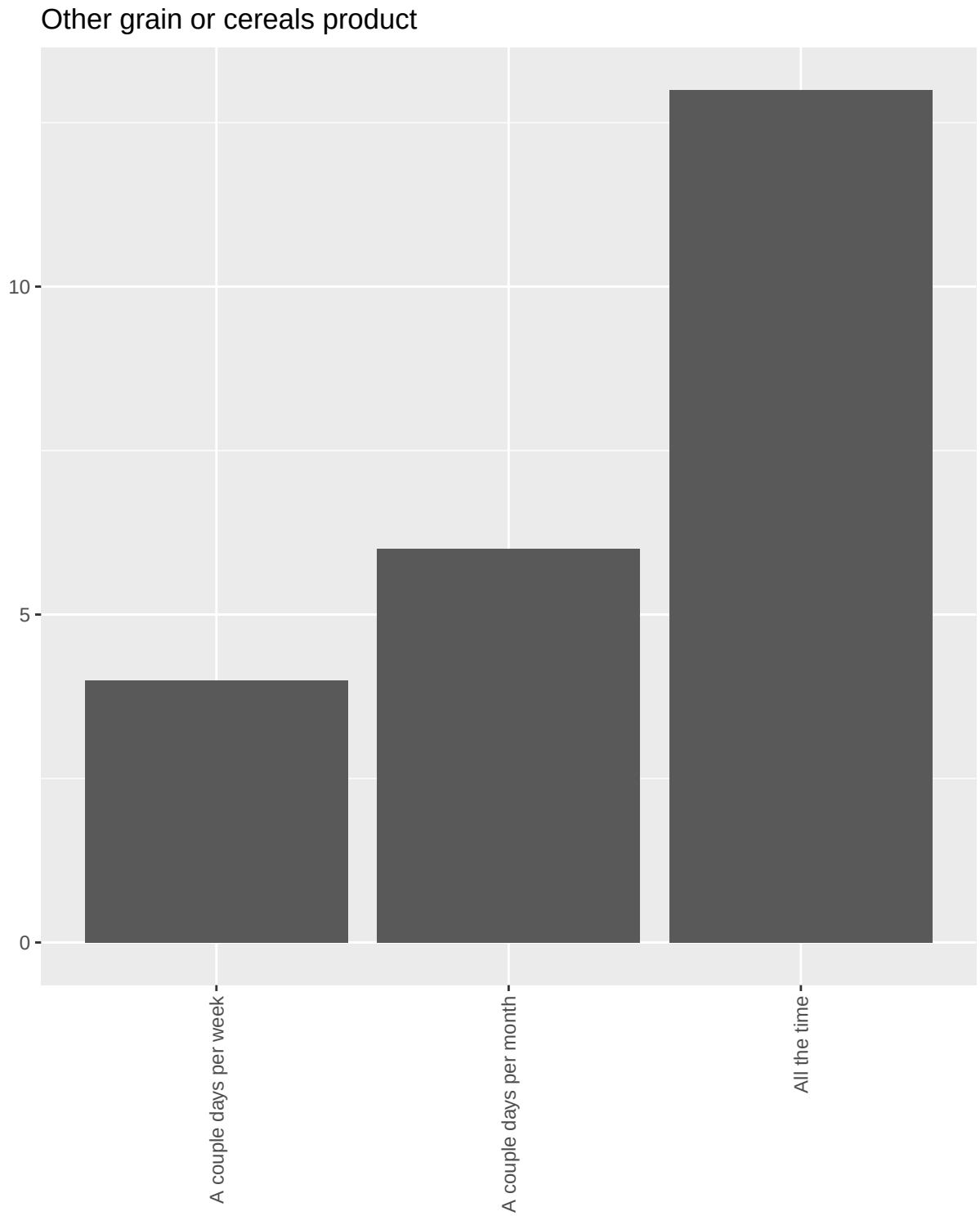

Flour, wheat, maize
100
75
50
25
0
A couple days per week
A couple days per month
All the time

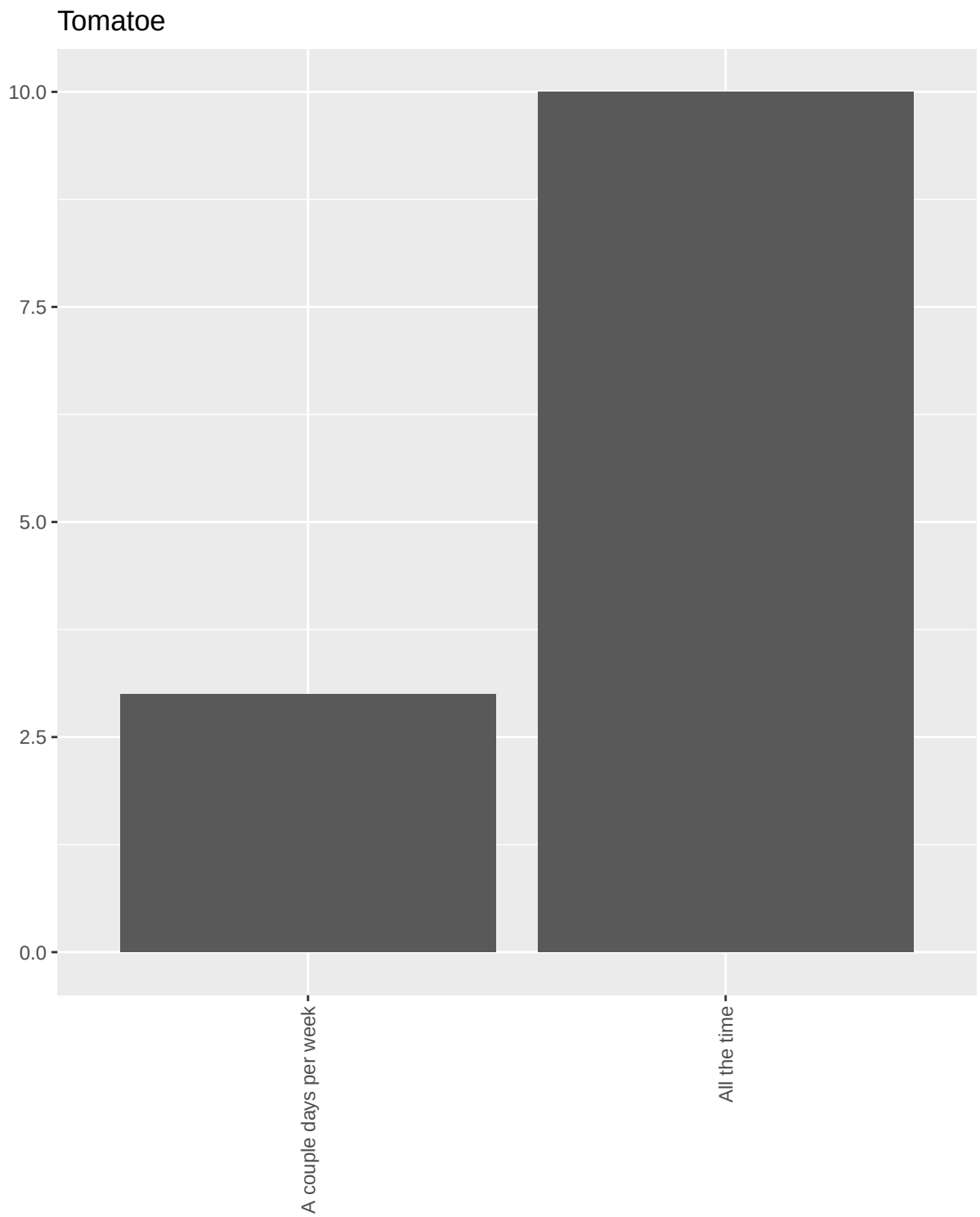

Other dried, canned or salted fish
25
20
15
10
5
0
A couple days per week
A couple days per month
All the time

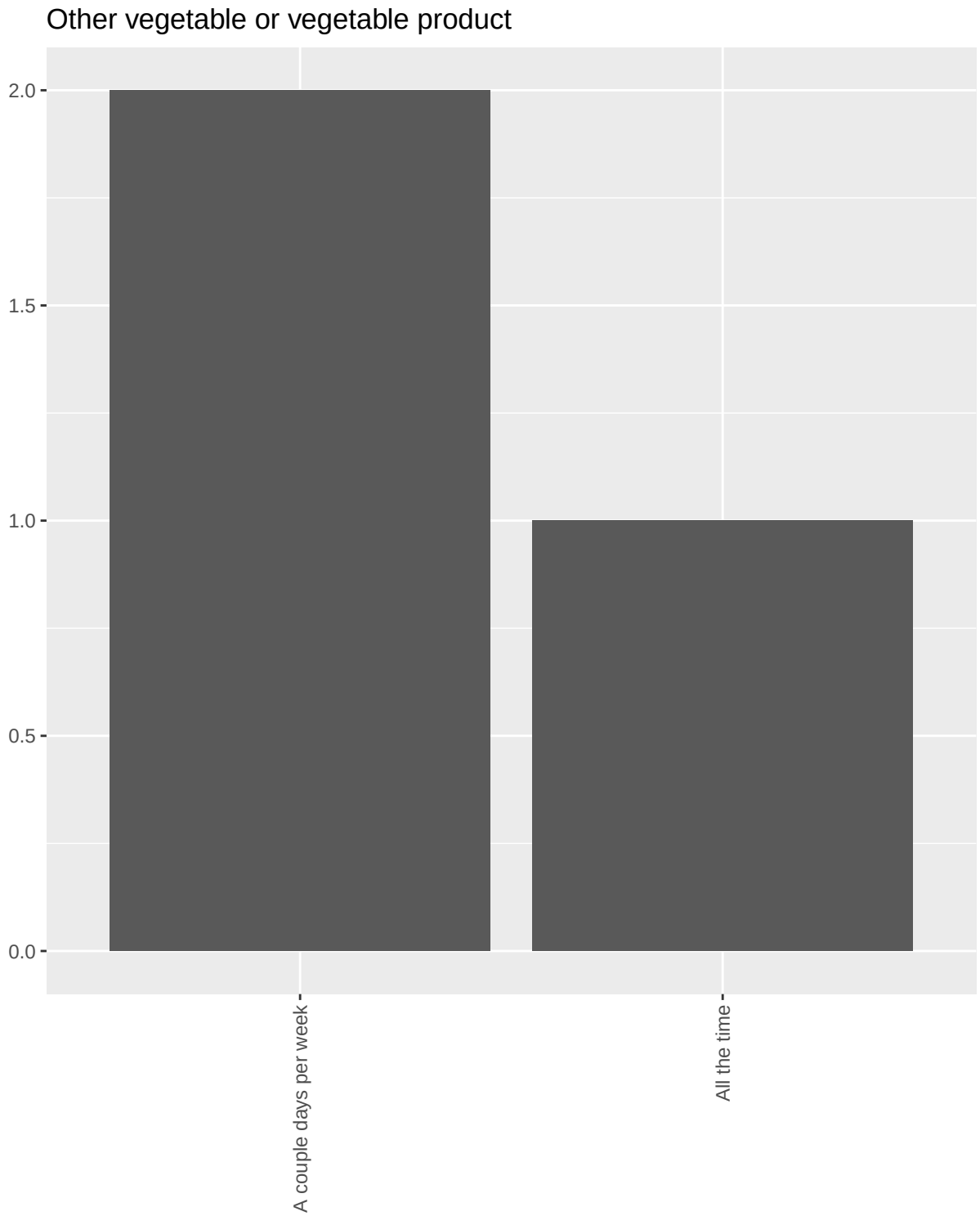

Coffee, instant (powder, e.g. nescafe)
75
50
25
0
A couple days per week
A couple days per month
All the time

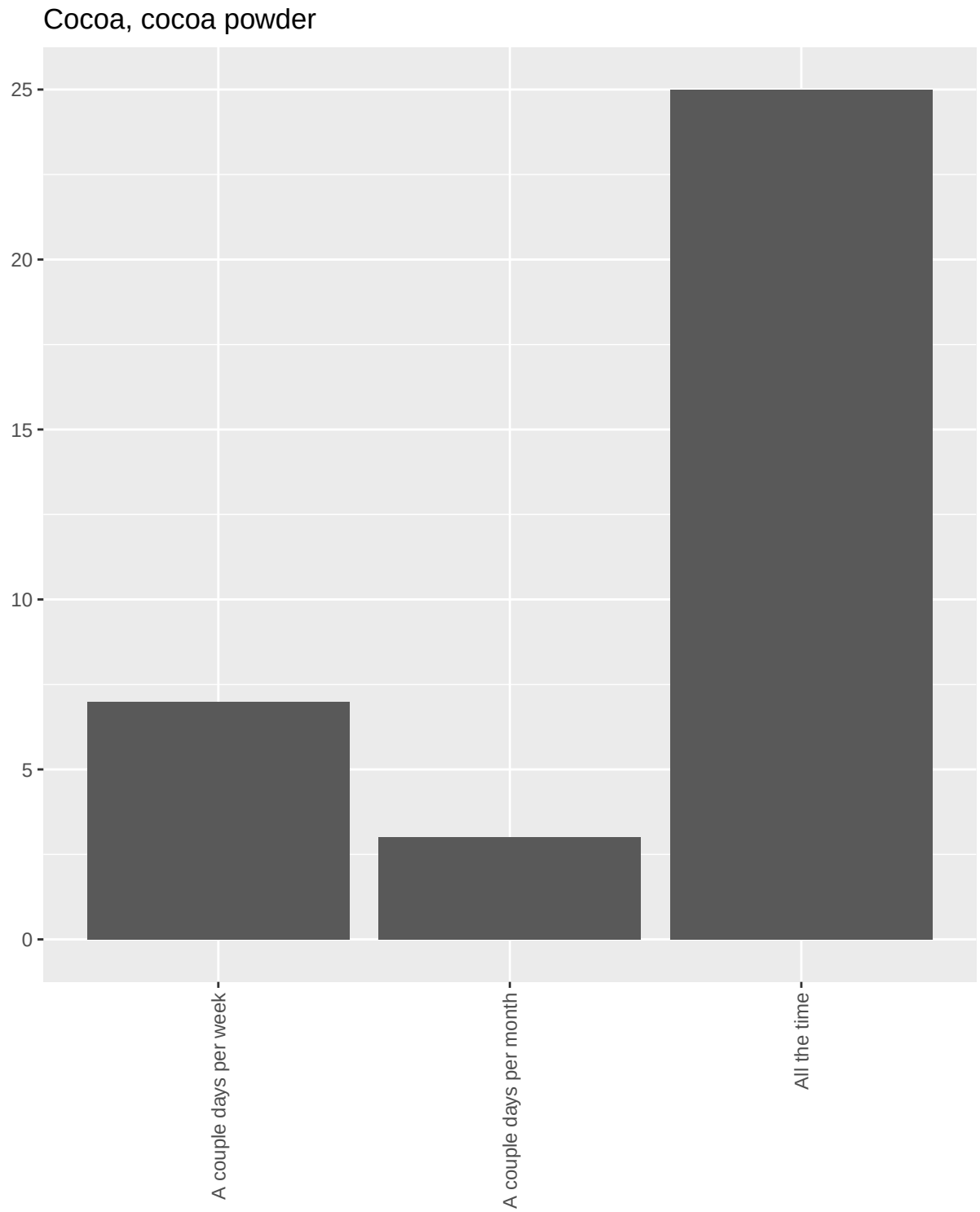

Tea, black, bag
150
100
50
0
A couple days per week
All the time

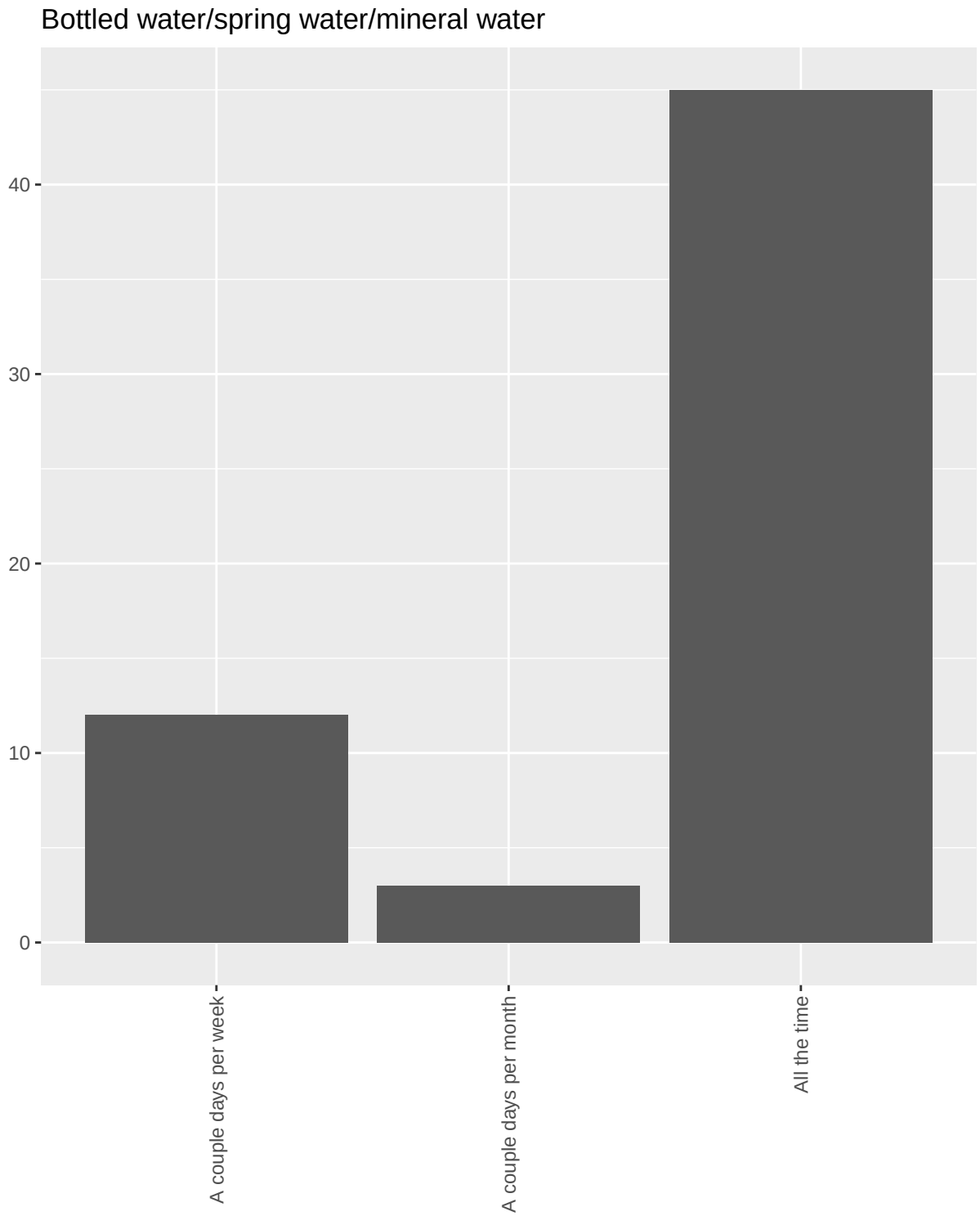

Beverage, chocolate flavour, from base (Milo)
60
40
20
0
A couple days per week
A couple days per month
All the time

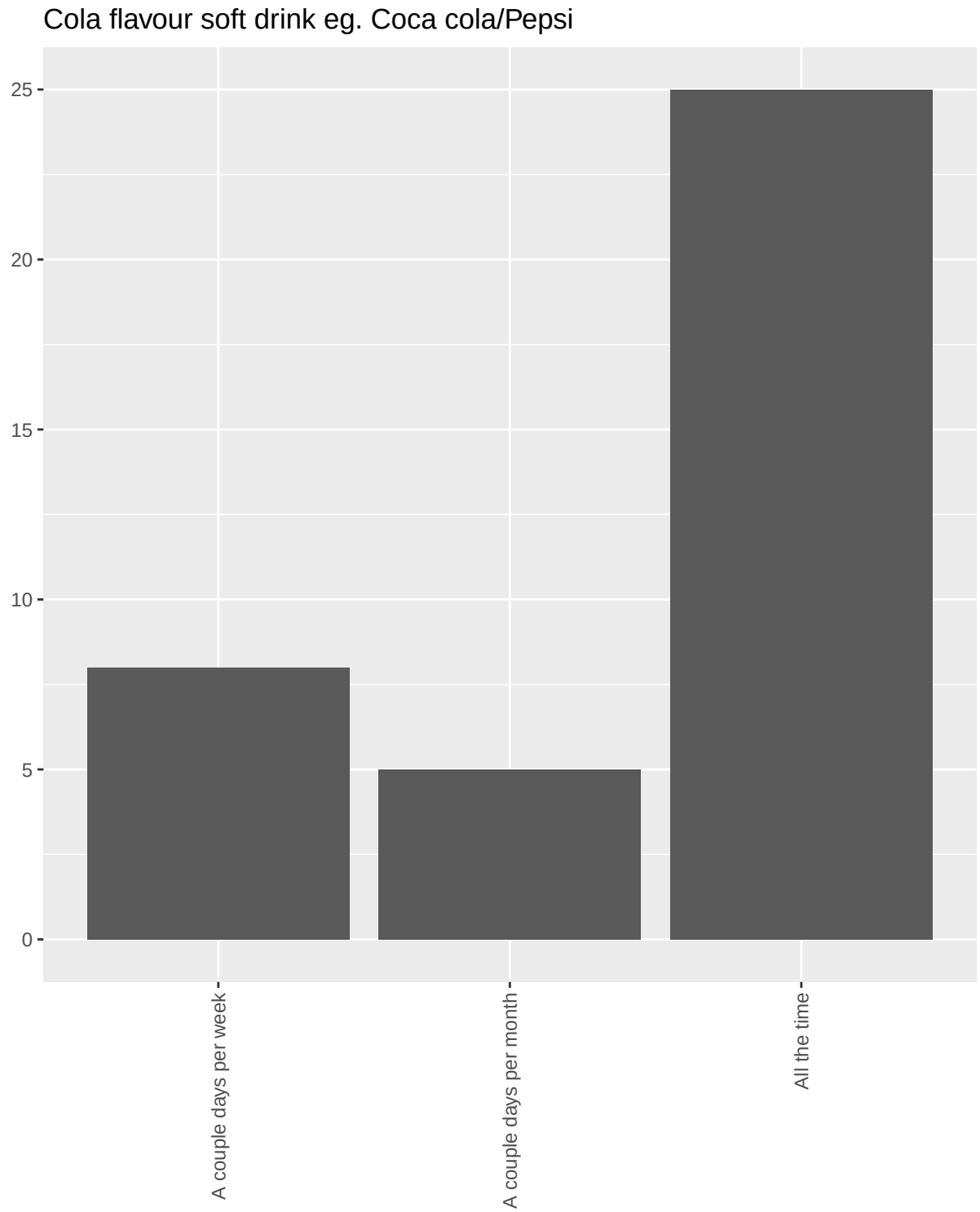

Other grain or cereals product
10
5
0
A couple days per week
A couple days per month
All the time

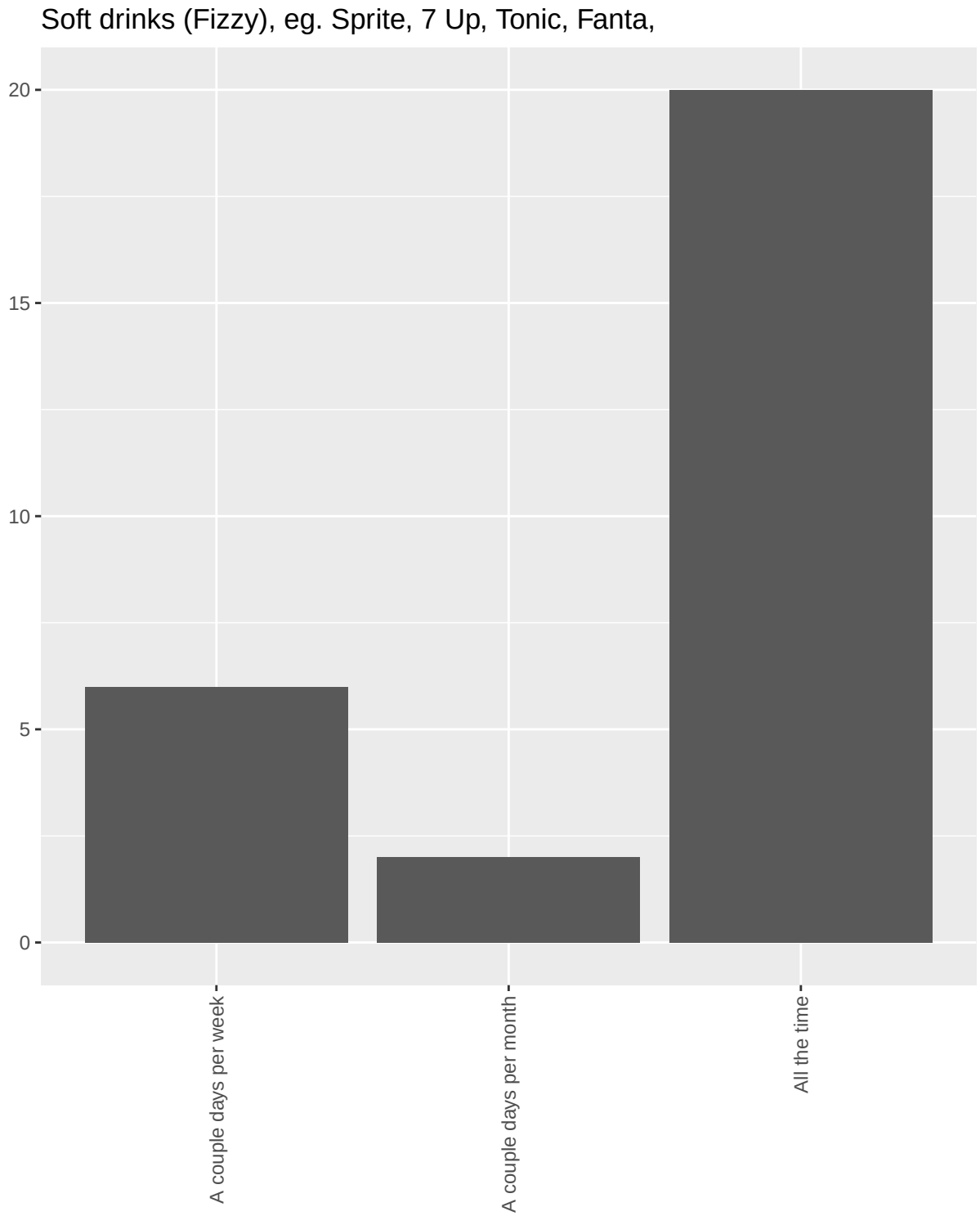

Tomatoe
10.0
7.5
5.0
2.5
0.0
A couple days per week
All the time

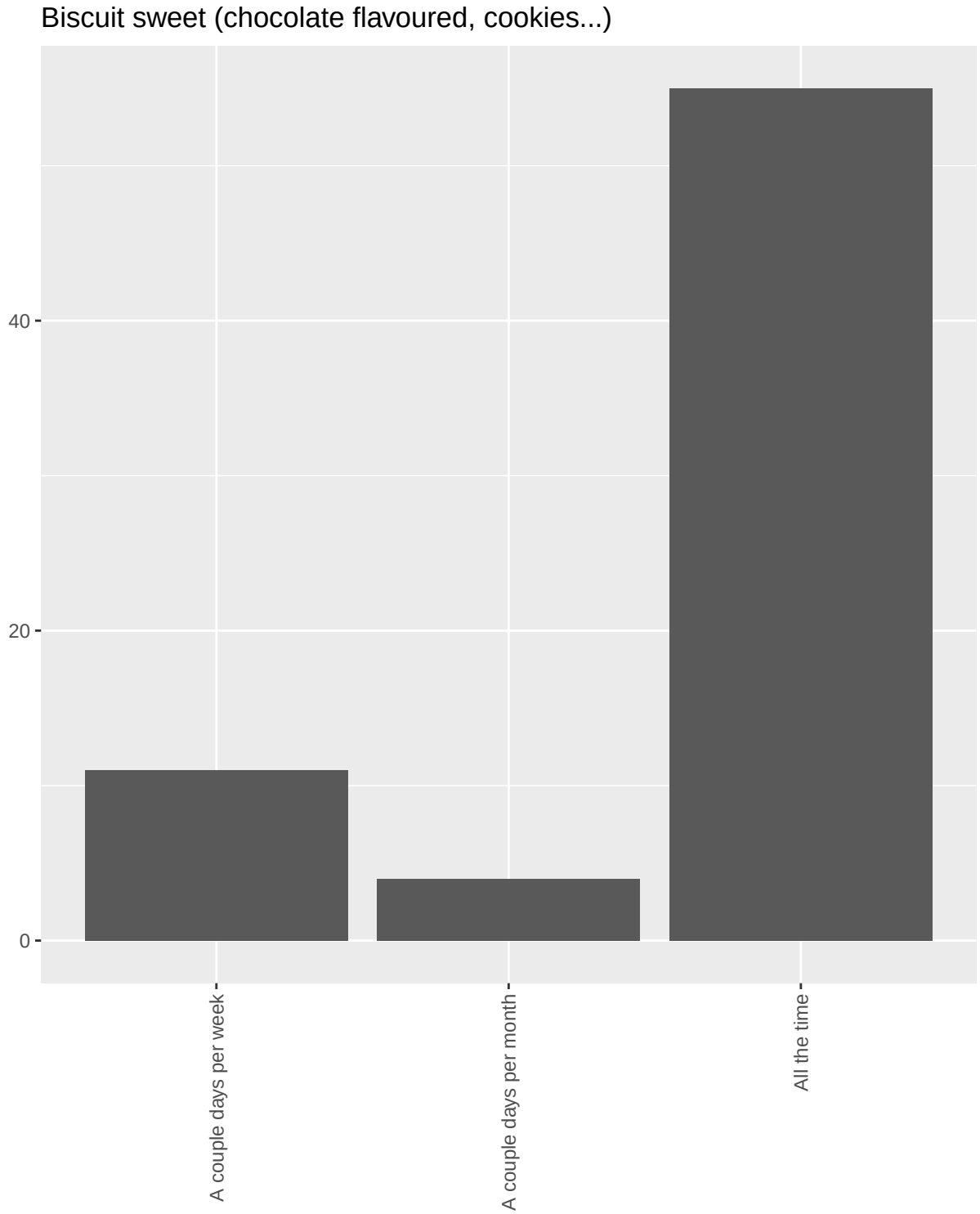

Other vegetable or vegetable product
2.0
1.5
1.0
0.5
0.0
A couple days per week
All the time

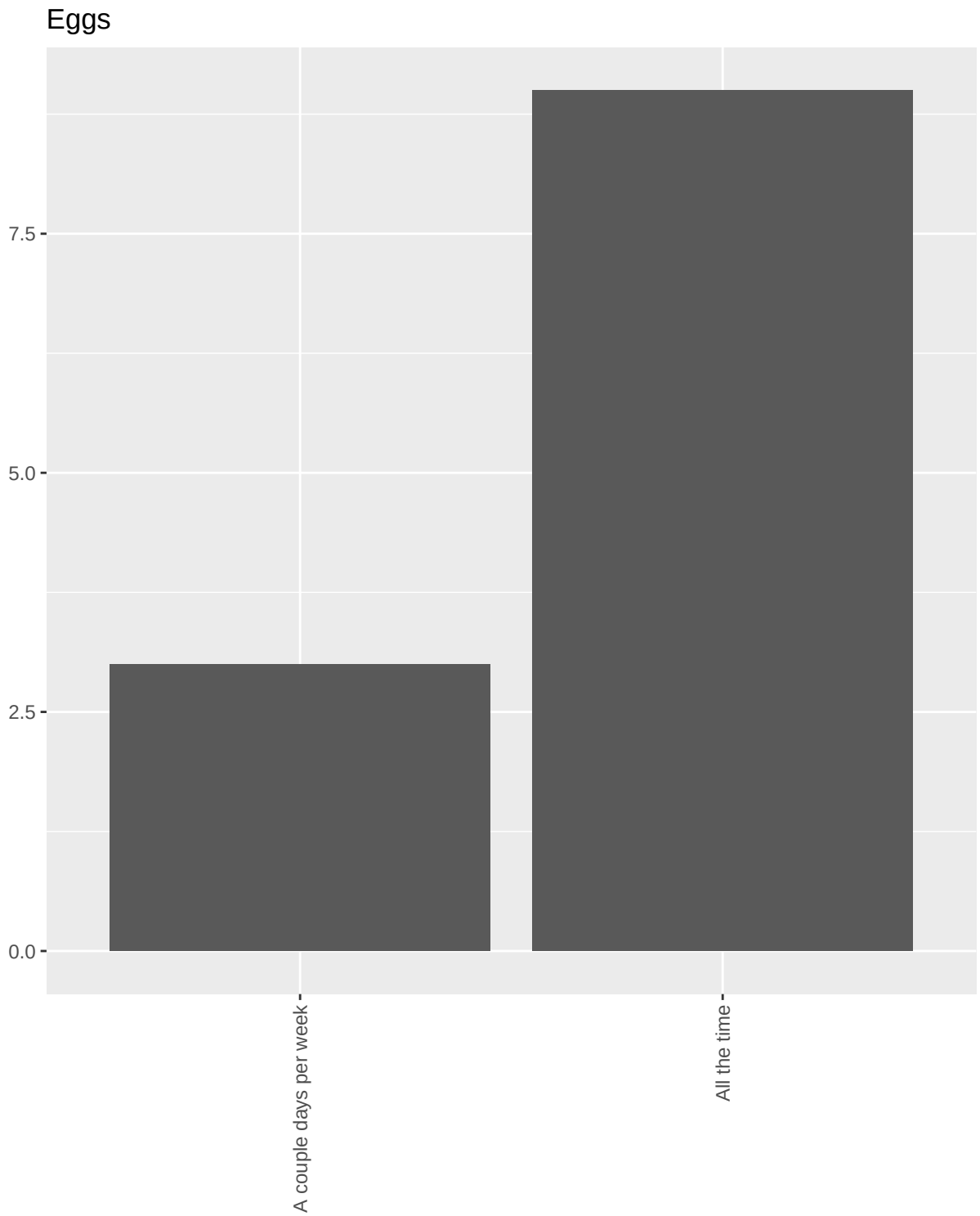

Cocoa, cocoa powder
25
20
15
10
5
0
A couple days per week
A couple days per month
All the time

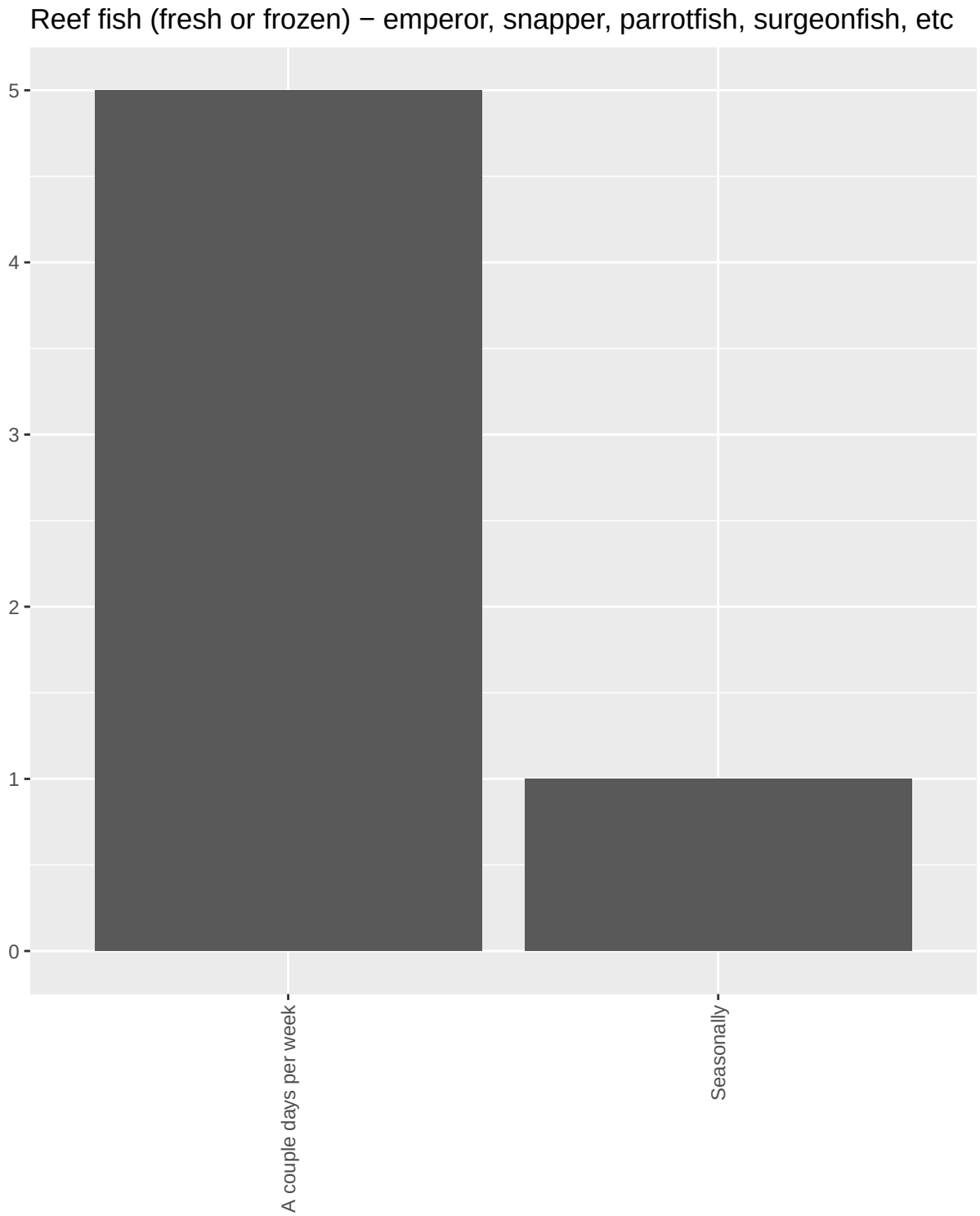

Bottled water/spring water/mineral water
40
30
20
10
0
A couple days per week
A couple days per month
All the time

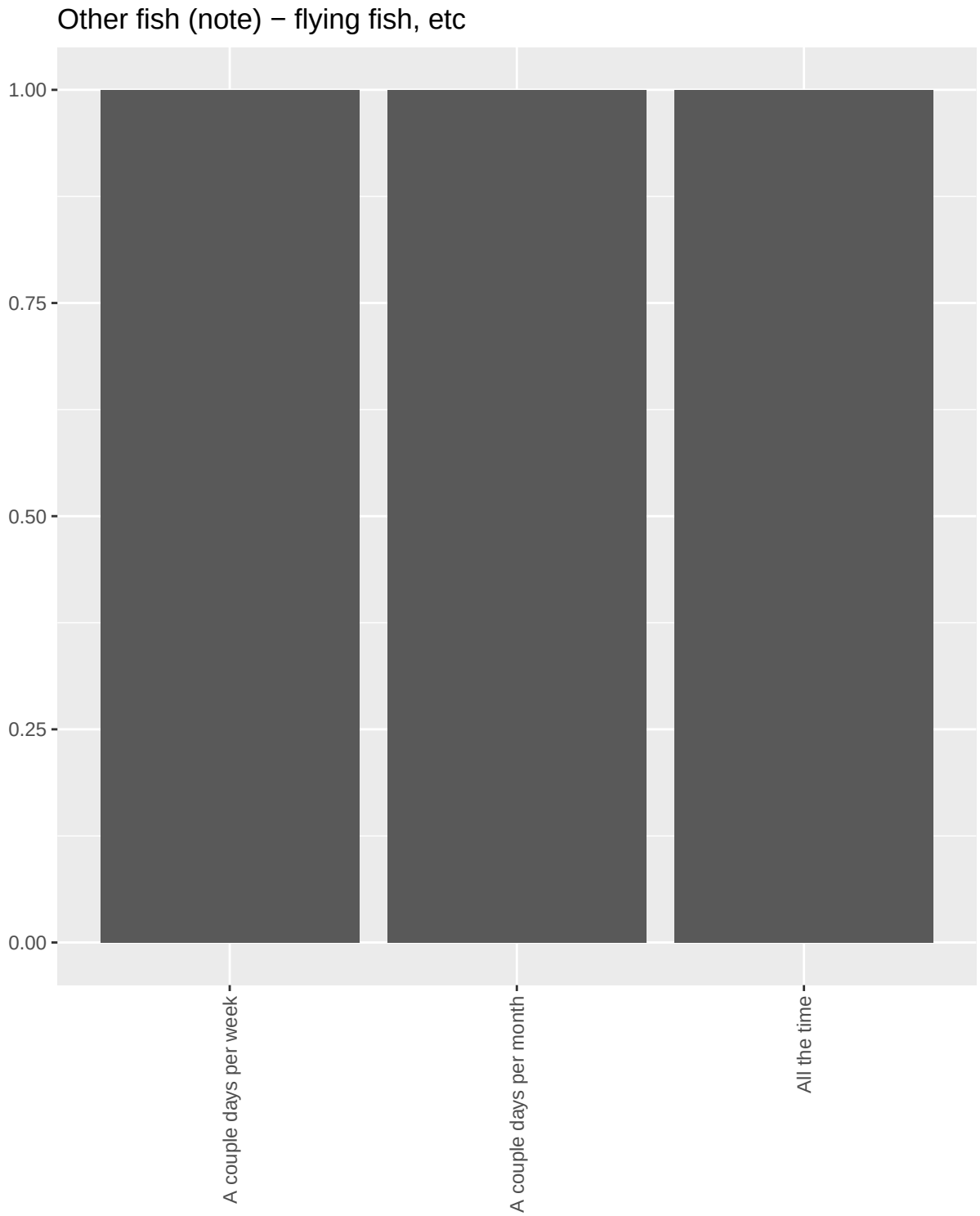

Cola flavour soft drink eg. Coca cola/Pepsi
25
20
15
10
5
0
A couple days per week
A couple days per month
All the time

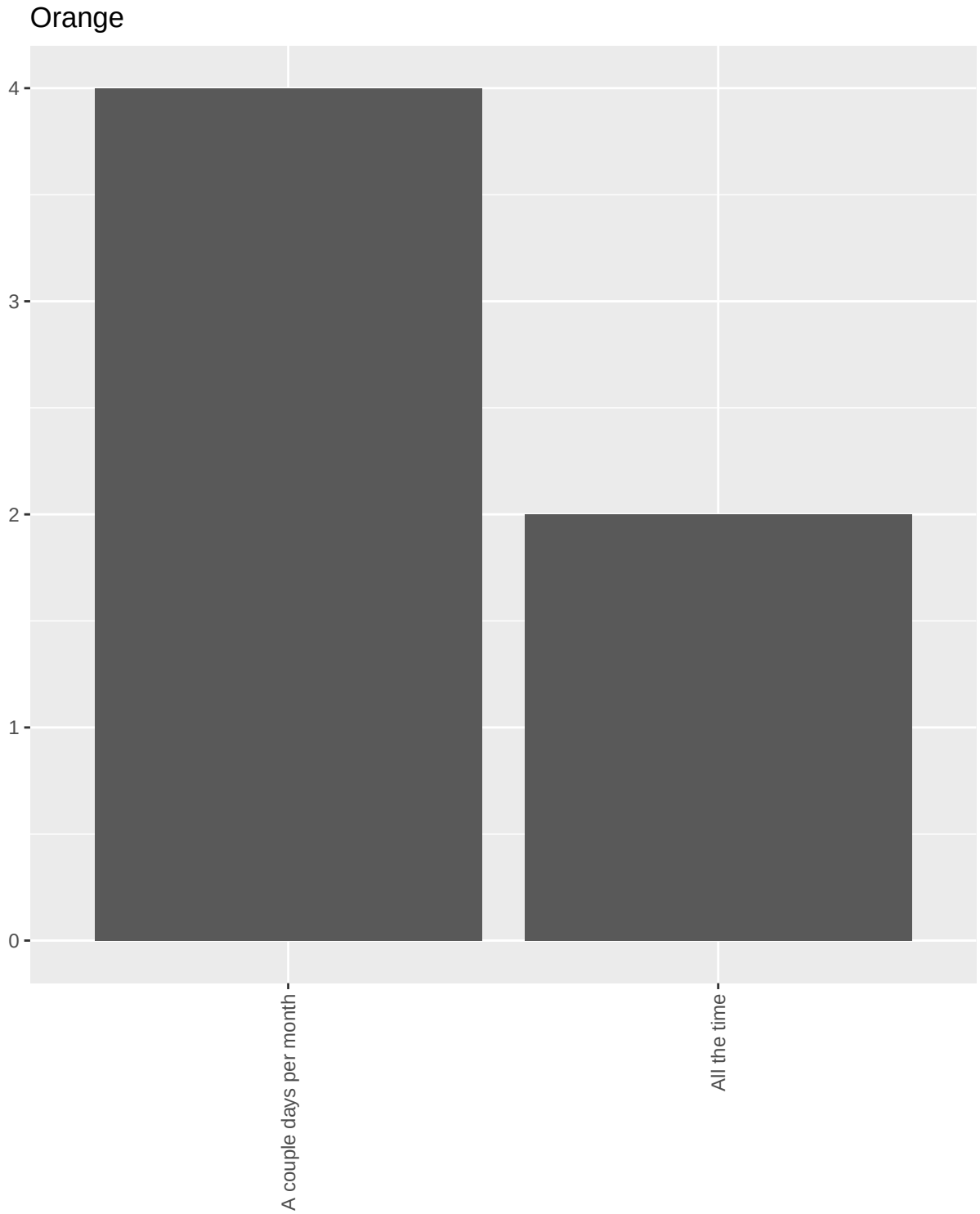

Soft drinks (Fizzy), eg. Sprite, 7 Up, Tonic, Fanta,
20
15
10
5
0
A couple days per week
A couple days per month
All the time

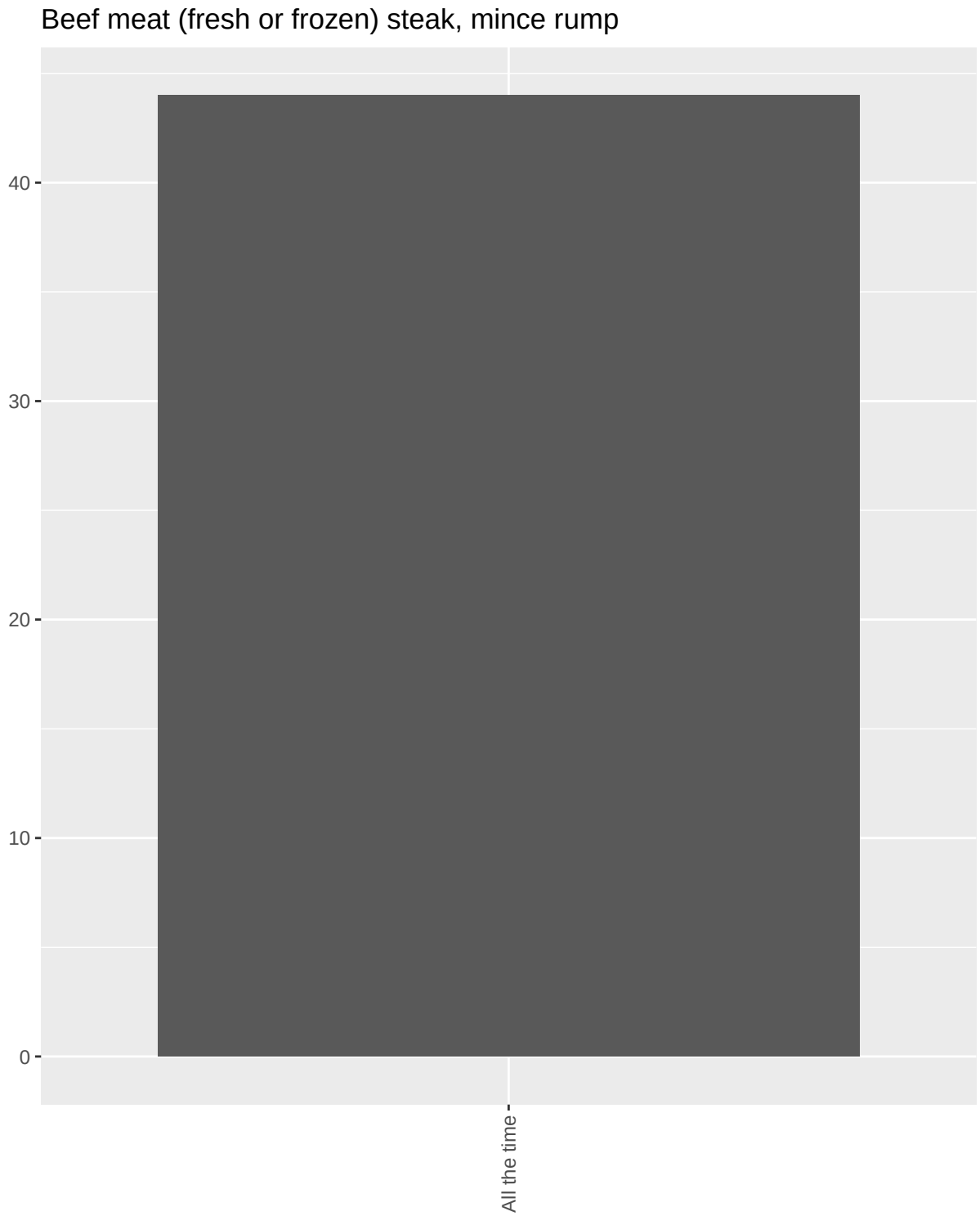

Biscuit sweet (chocolate flavoured, cookies...)
40
20
0
A couple days per week
A couple days per month
All the time

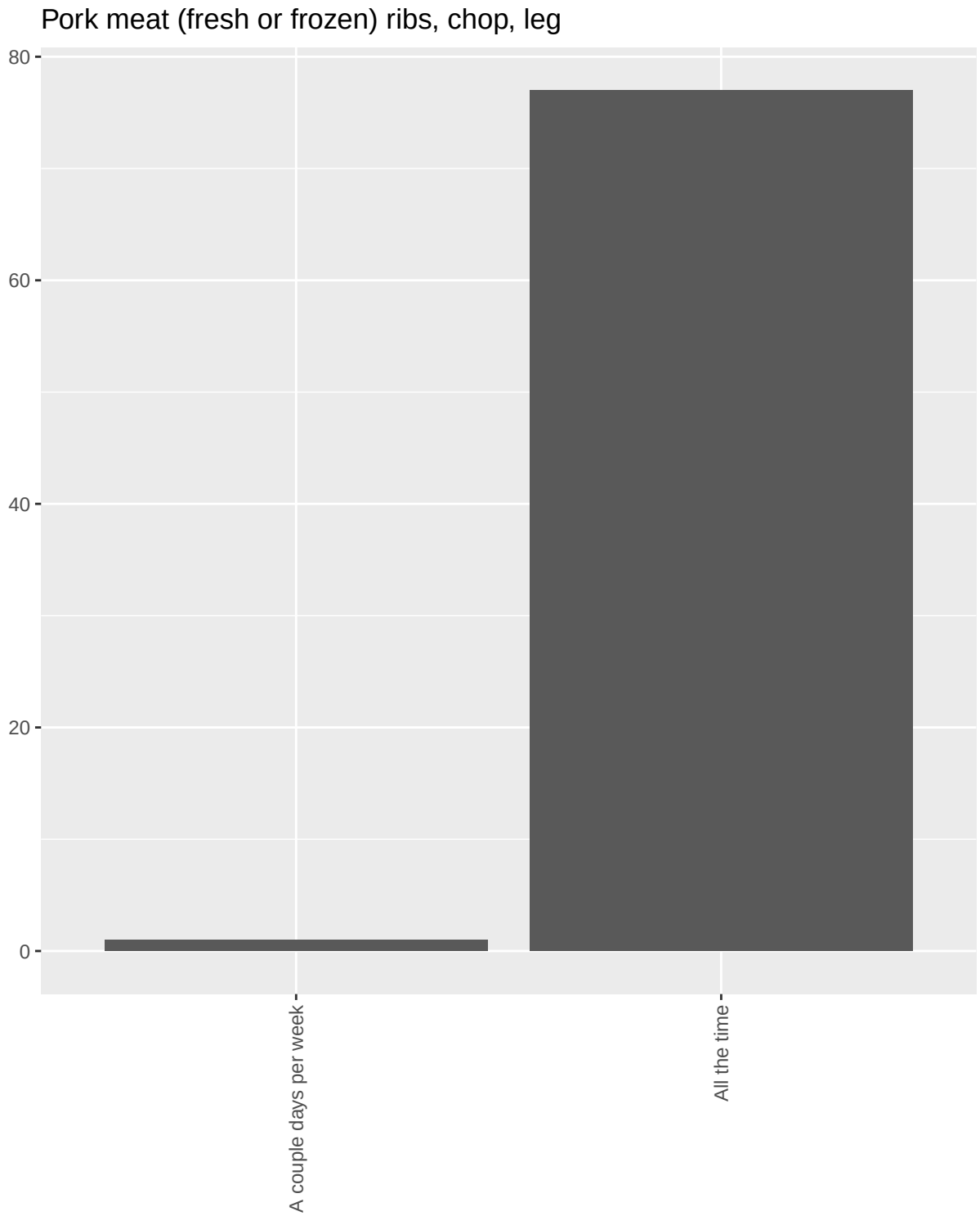

Eggs
7.5
5.0
2.5
0.0
A couple days per week
All the time

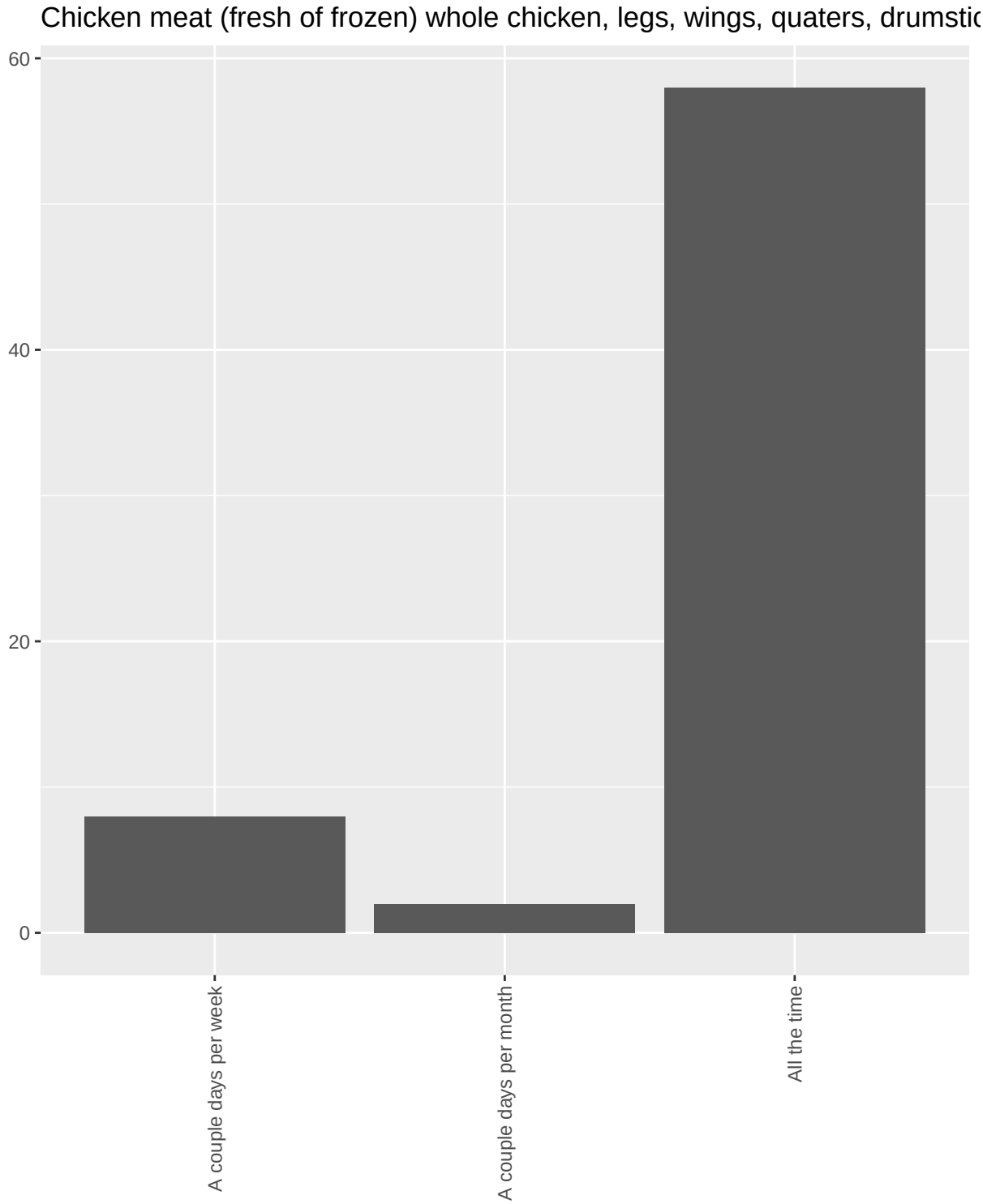

Reef fish (fresh or frozen) − emperor, snapper, parrotfish, surgeonfish, etc
5
4
3
2
1
0
A couple days per week
Seasonally

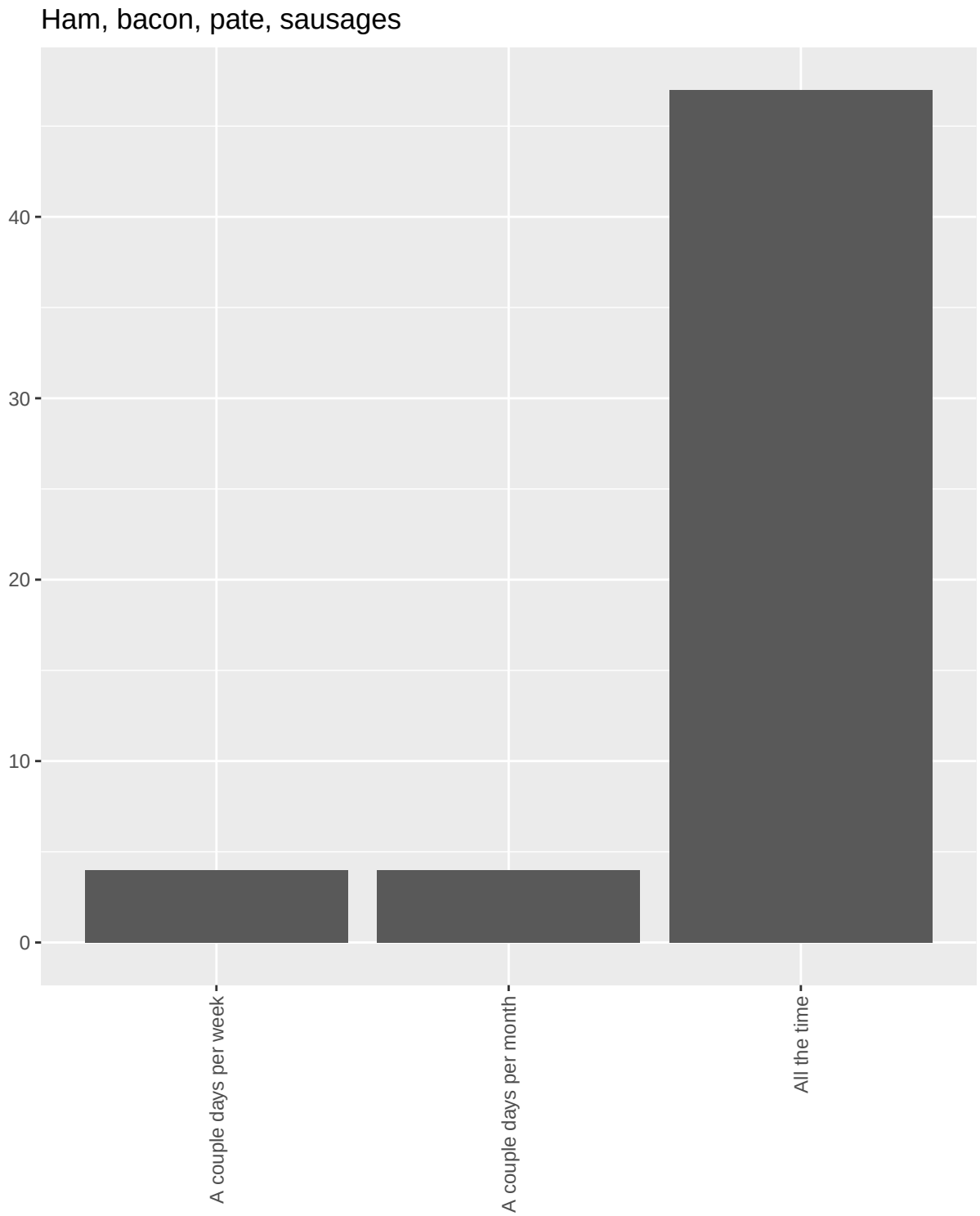

Other fish (note) − flying fish, etc
1.00
0.75
0.50
0.25
0.00
A couple days per week
A couple days per month
All the time

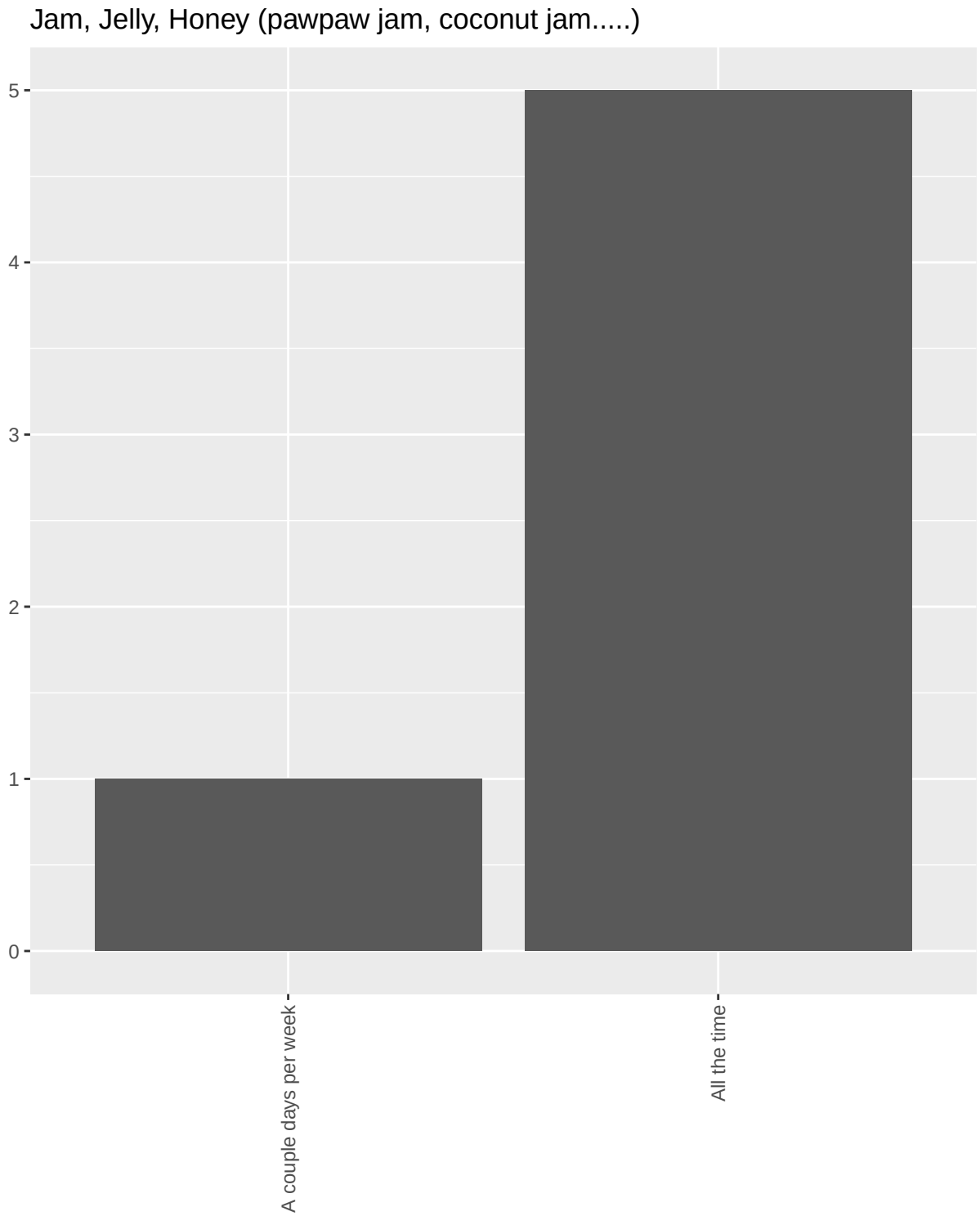

Orange
4
3
2
1
0
A couple days per month
All the time

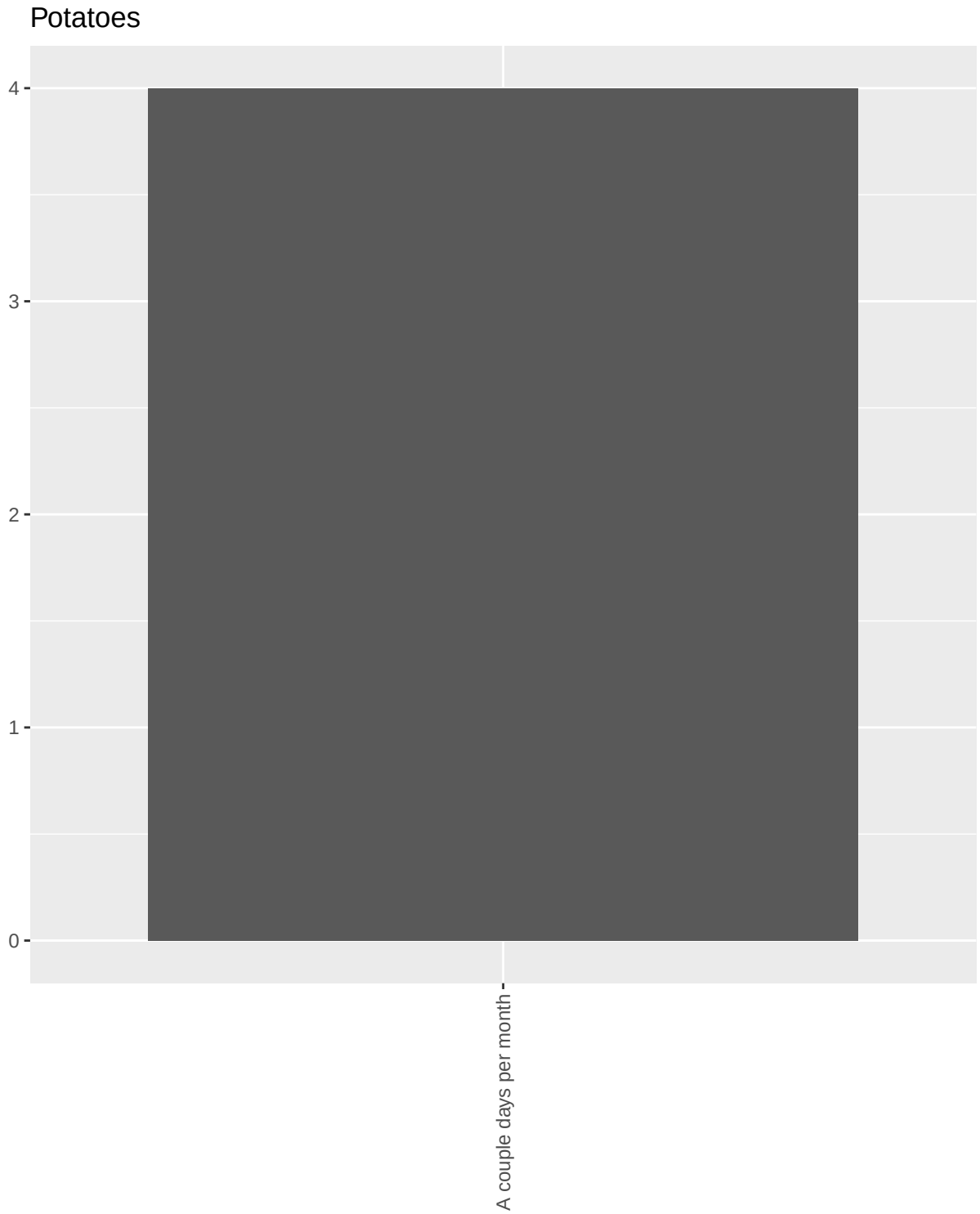

Beef meat (fresh or frozen) steak, mince rump
40
30
20
10
0
All the time

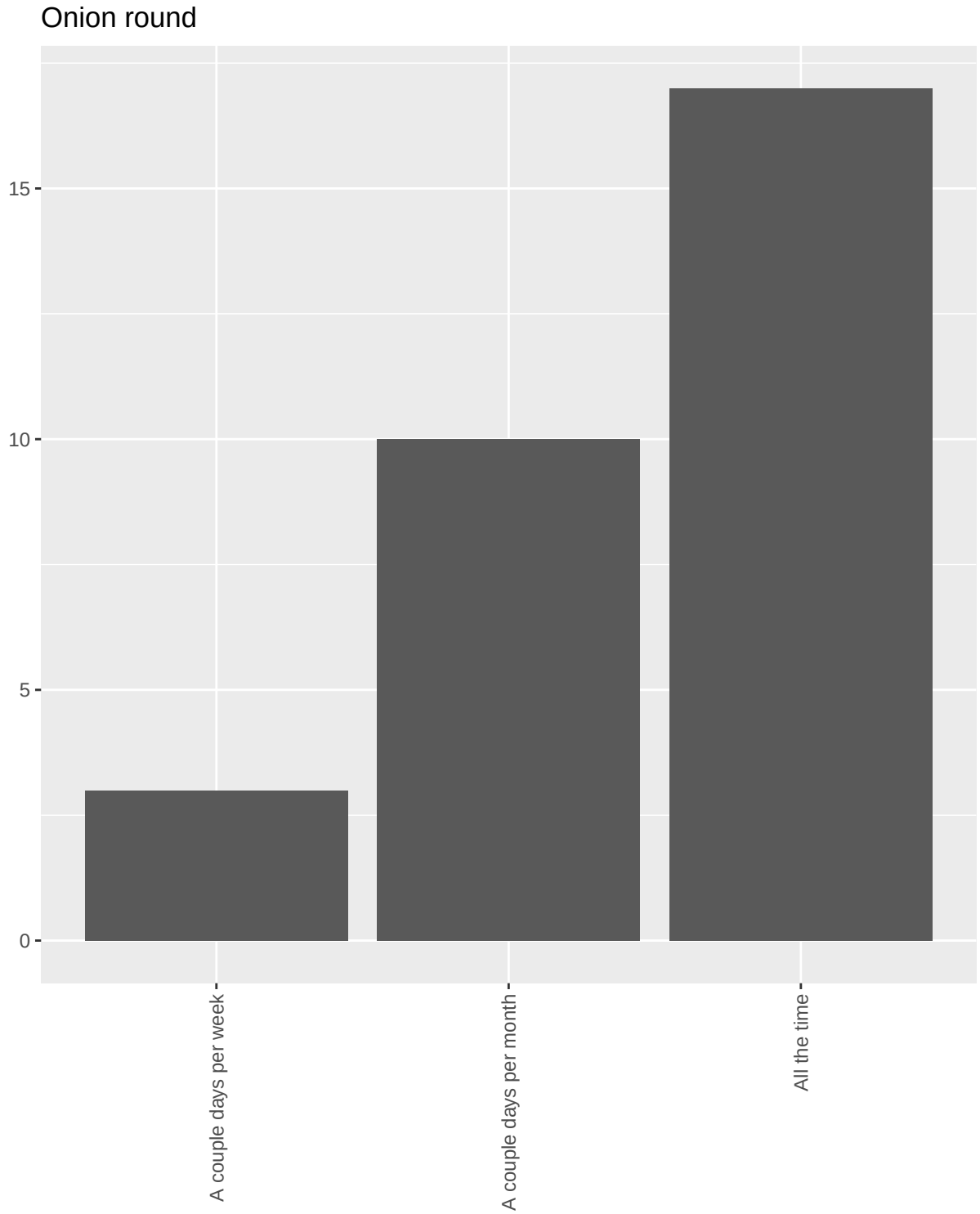

Pork meat (fresh or frozen) ribs, chop, leg
80
60
40
20
0
A couple days per week
All the time

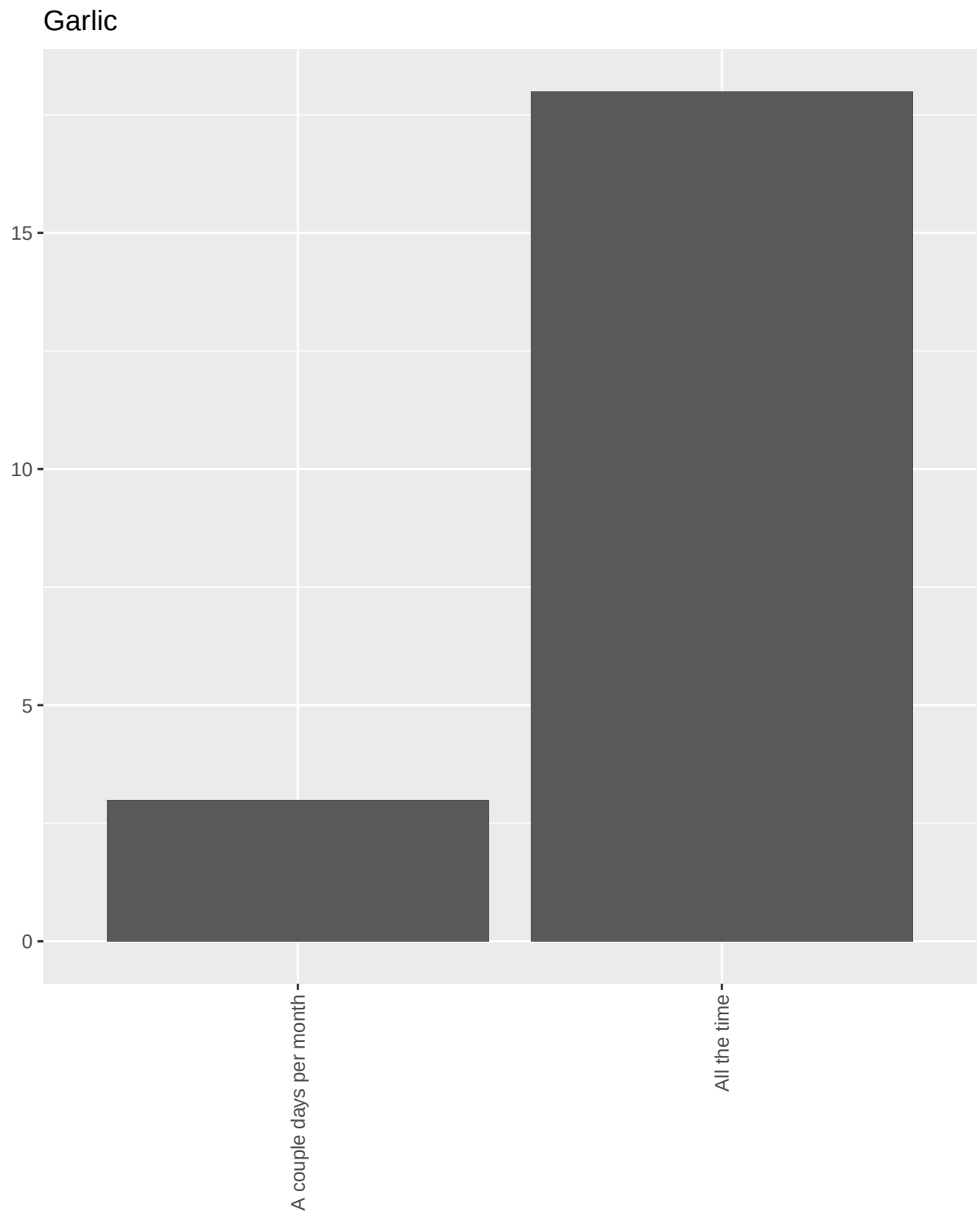

Chicken meat (fresh of frozen) whole chicken, legs, wings, quaters, drumstic
60
40
20
0
A couple days per week
A couple days per month
All the time

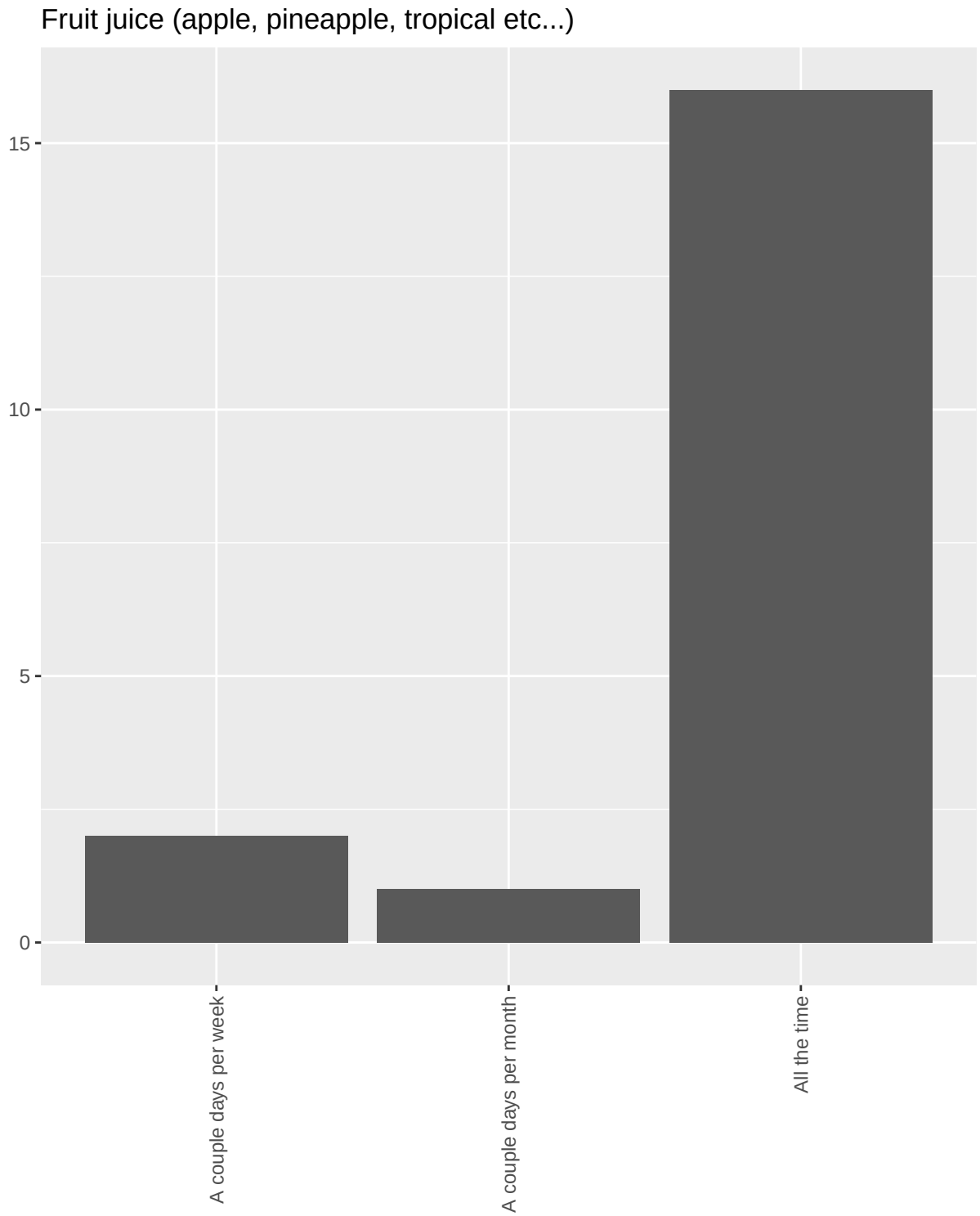

Ham, bacon, pate, sausages
40
30
20
10
0
A couple days per week
A couple days per month
All the time

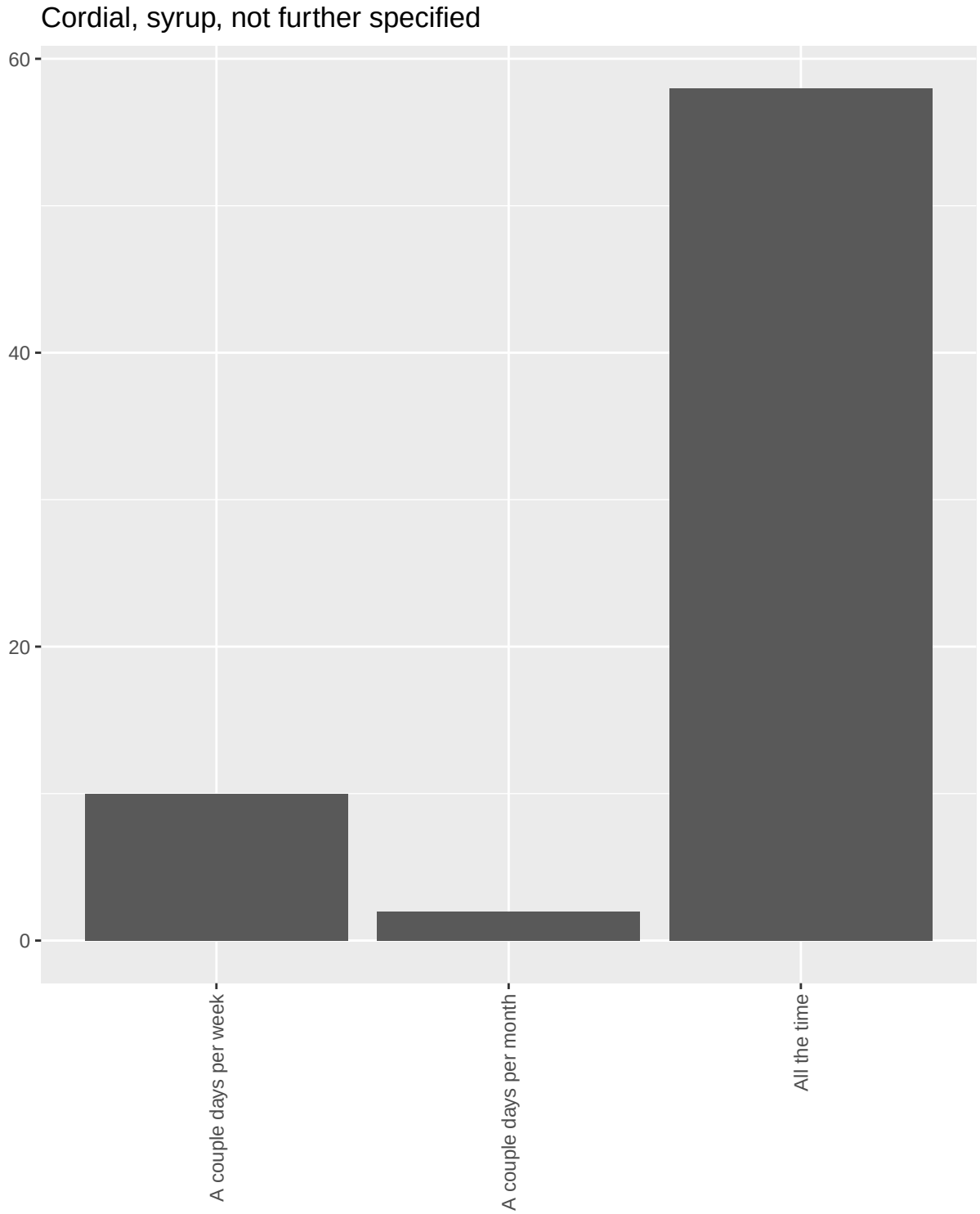

Jam, Jelly, Honey (pawpaw jam, coconut jam.....)
5
4
3
2
1
0
A couple days per week
All the time

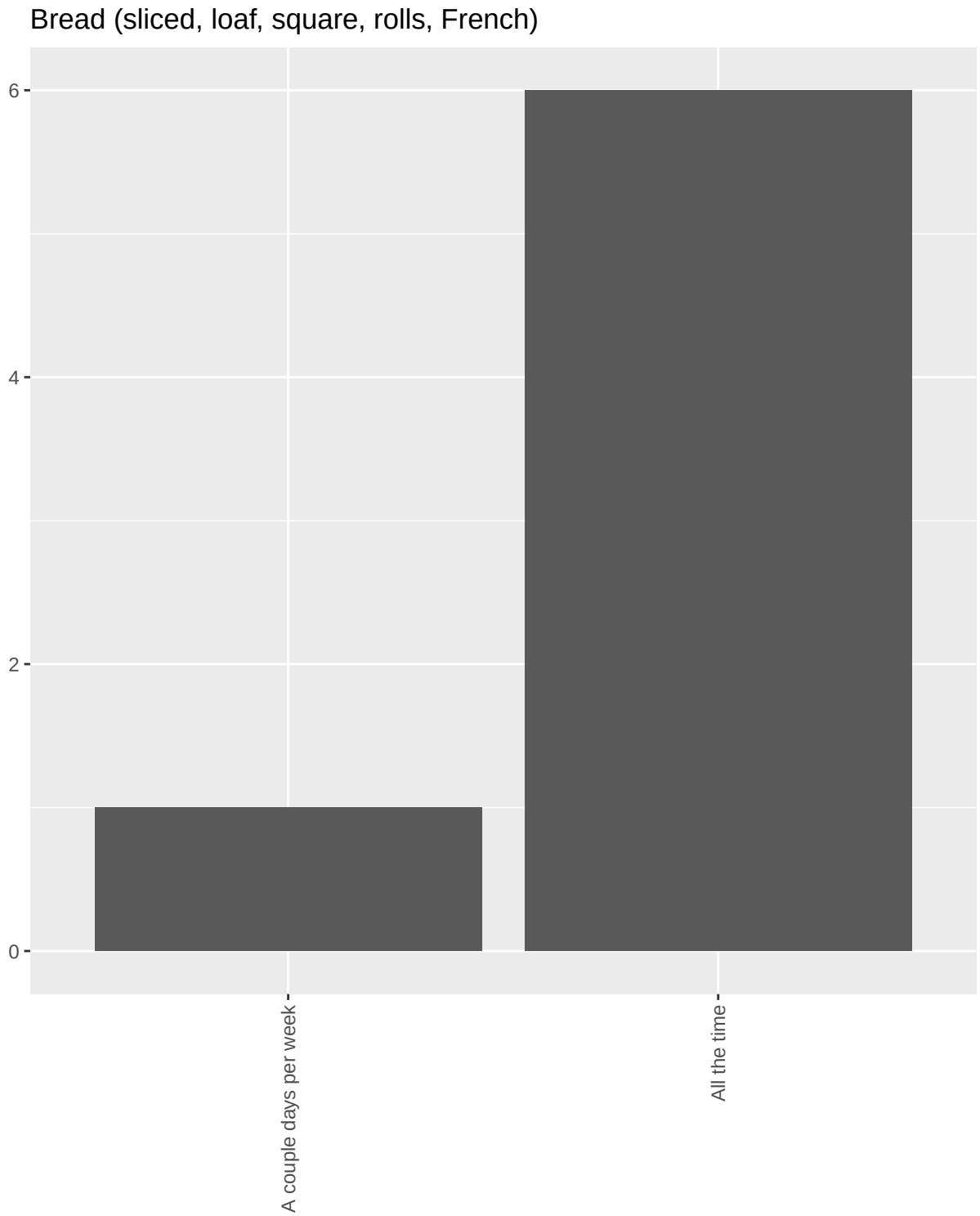

Potatoes
4
3
2
1
0
A couple days per month

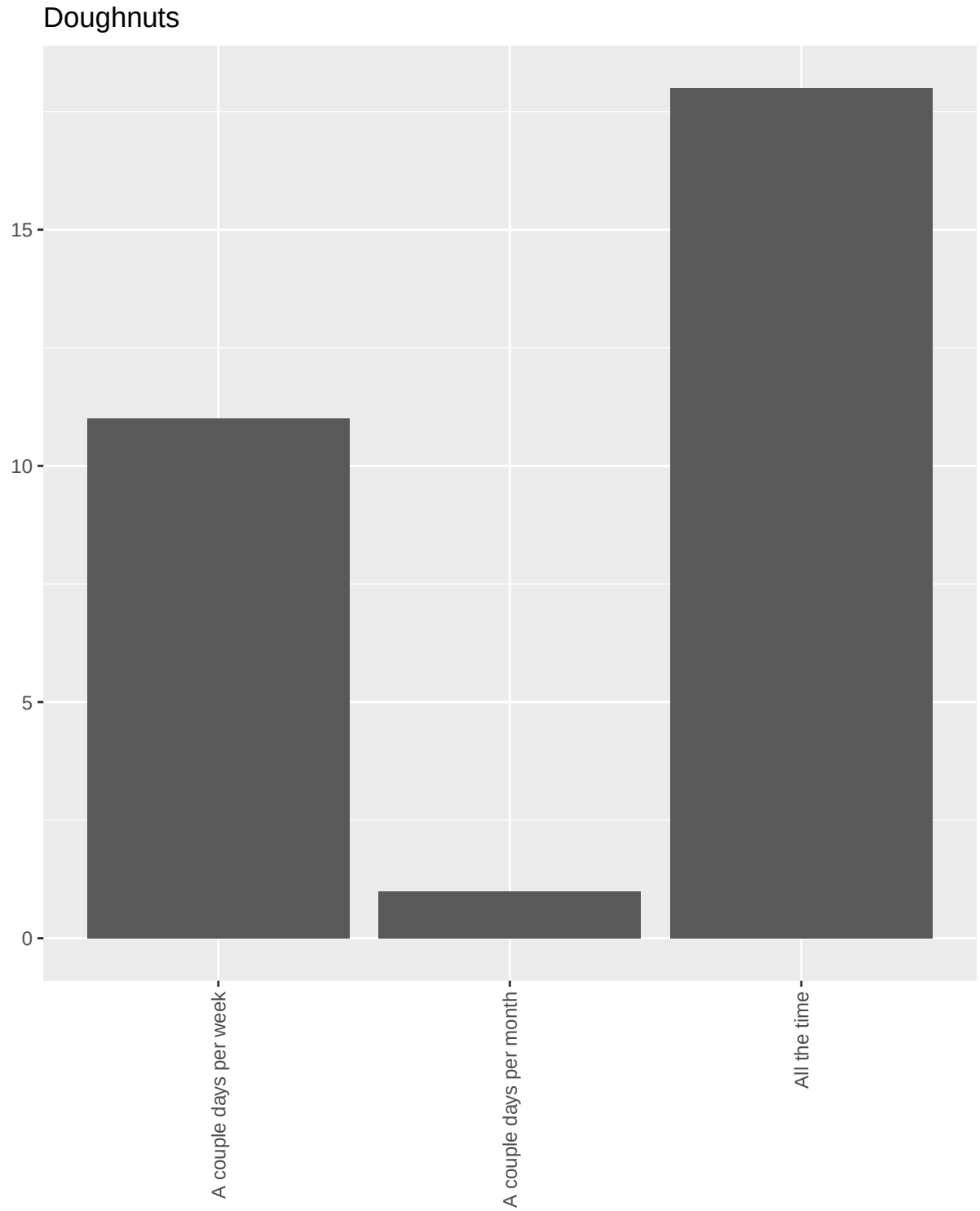

Onion round
15
10
5
0
A couple days per week
A couple days per month
All the time

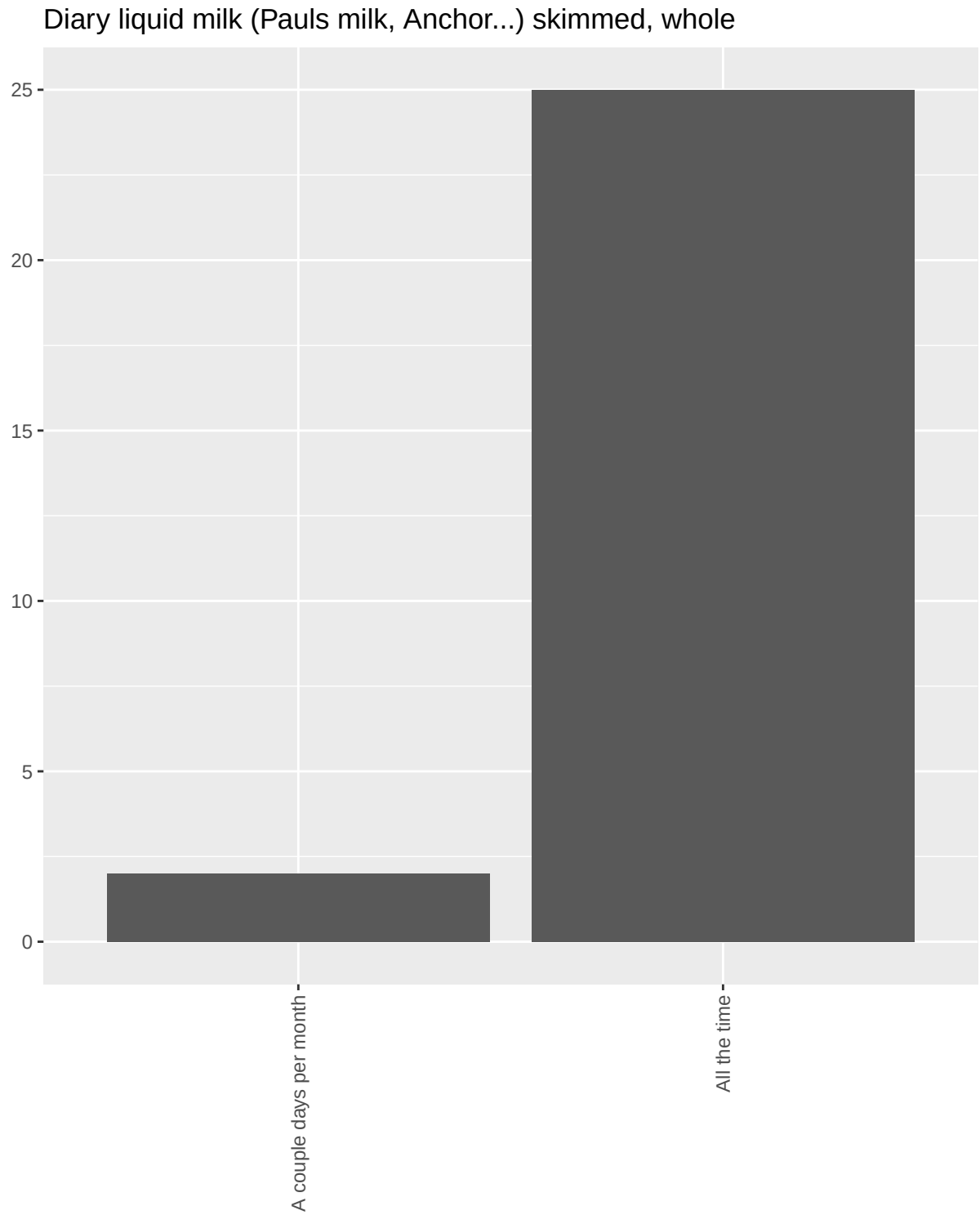

Garlic
15
10
5
0
A couple days per month
All the time

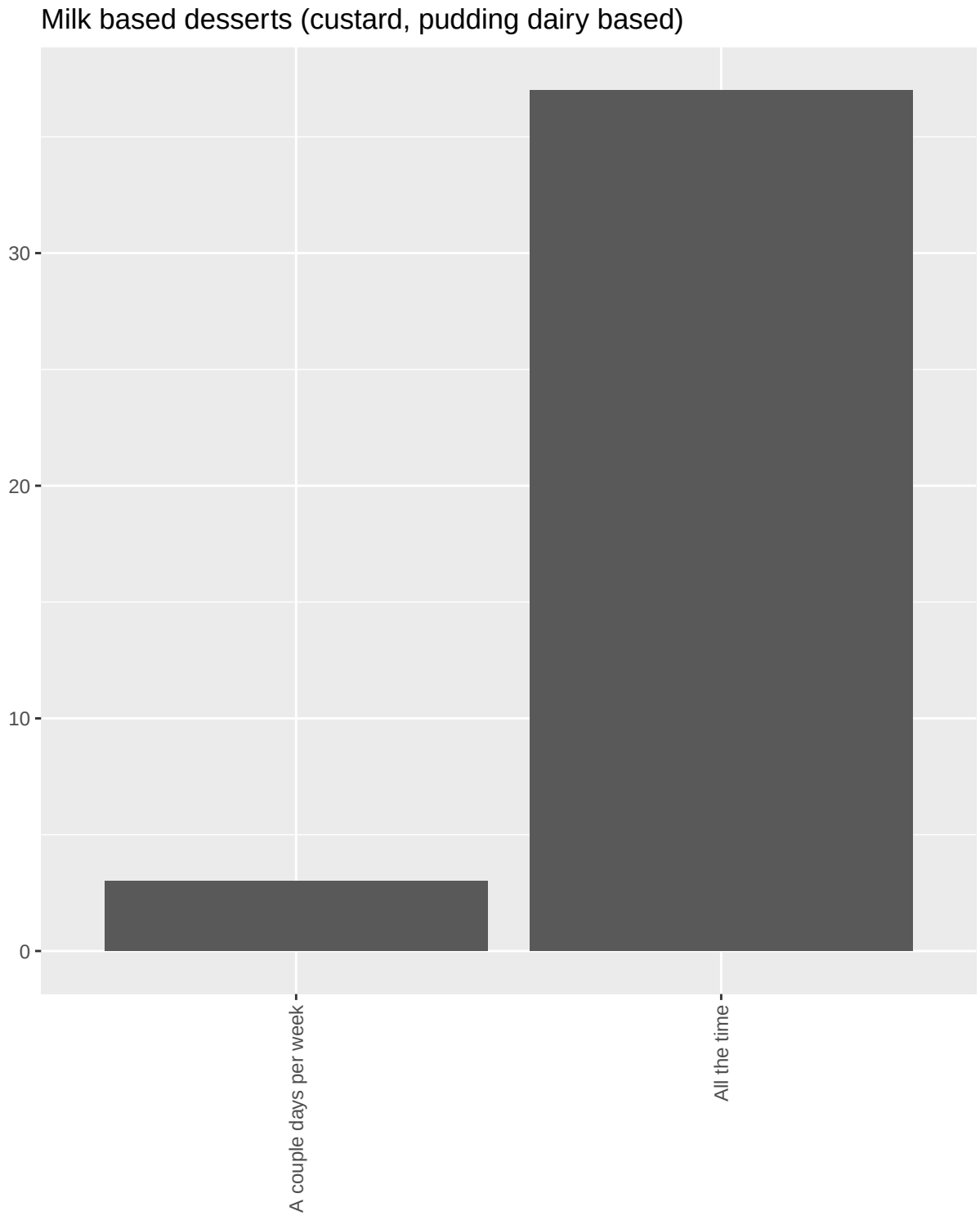

Fruit juice (apple, pineapple, tropical etc...)
15
10
5
0
A couple days per week
A couple days per month
All the time

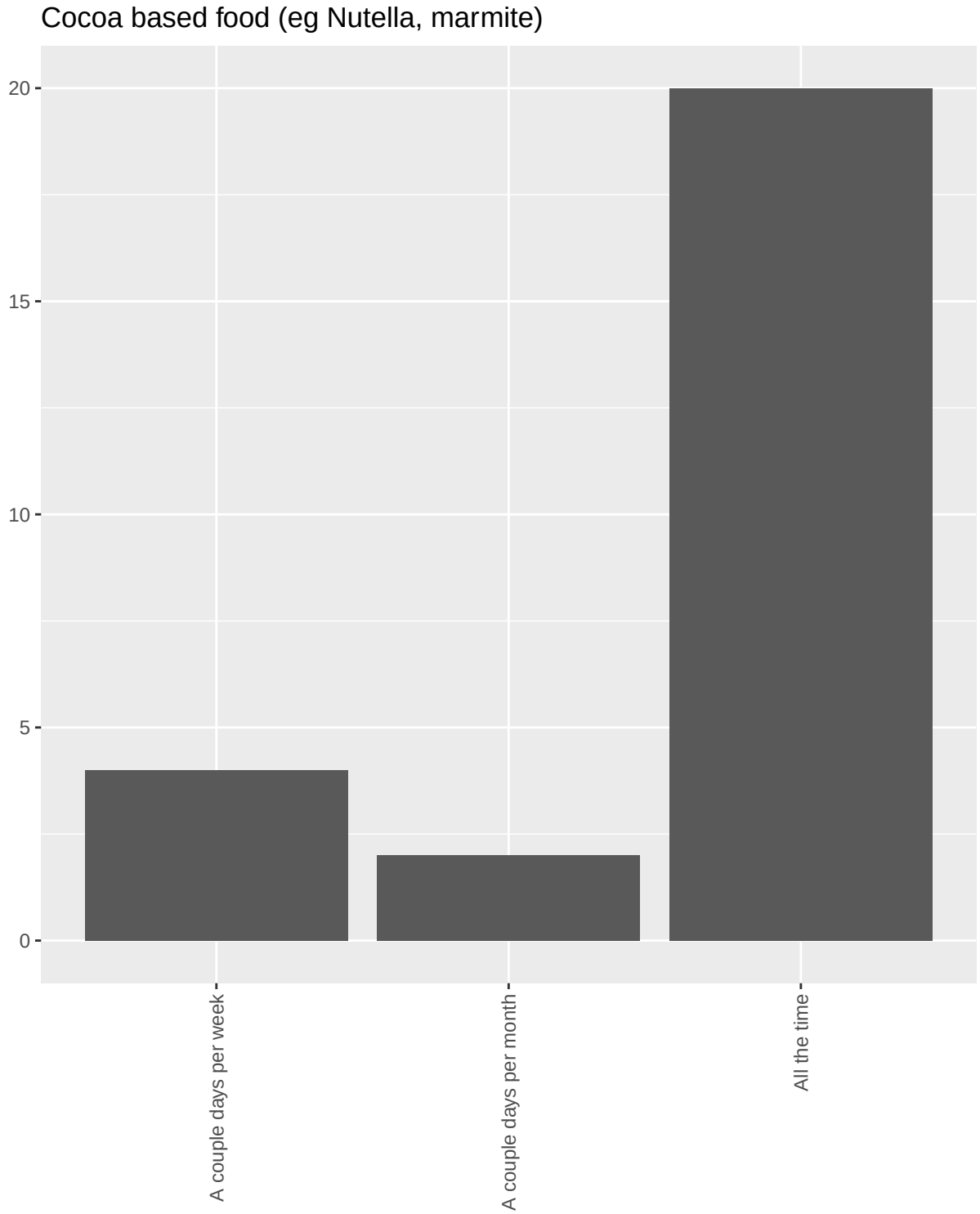

Cordial, syrup, not further specified
60
40
20
0
A couple days per week
A couple days per month
All the time

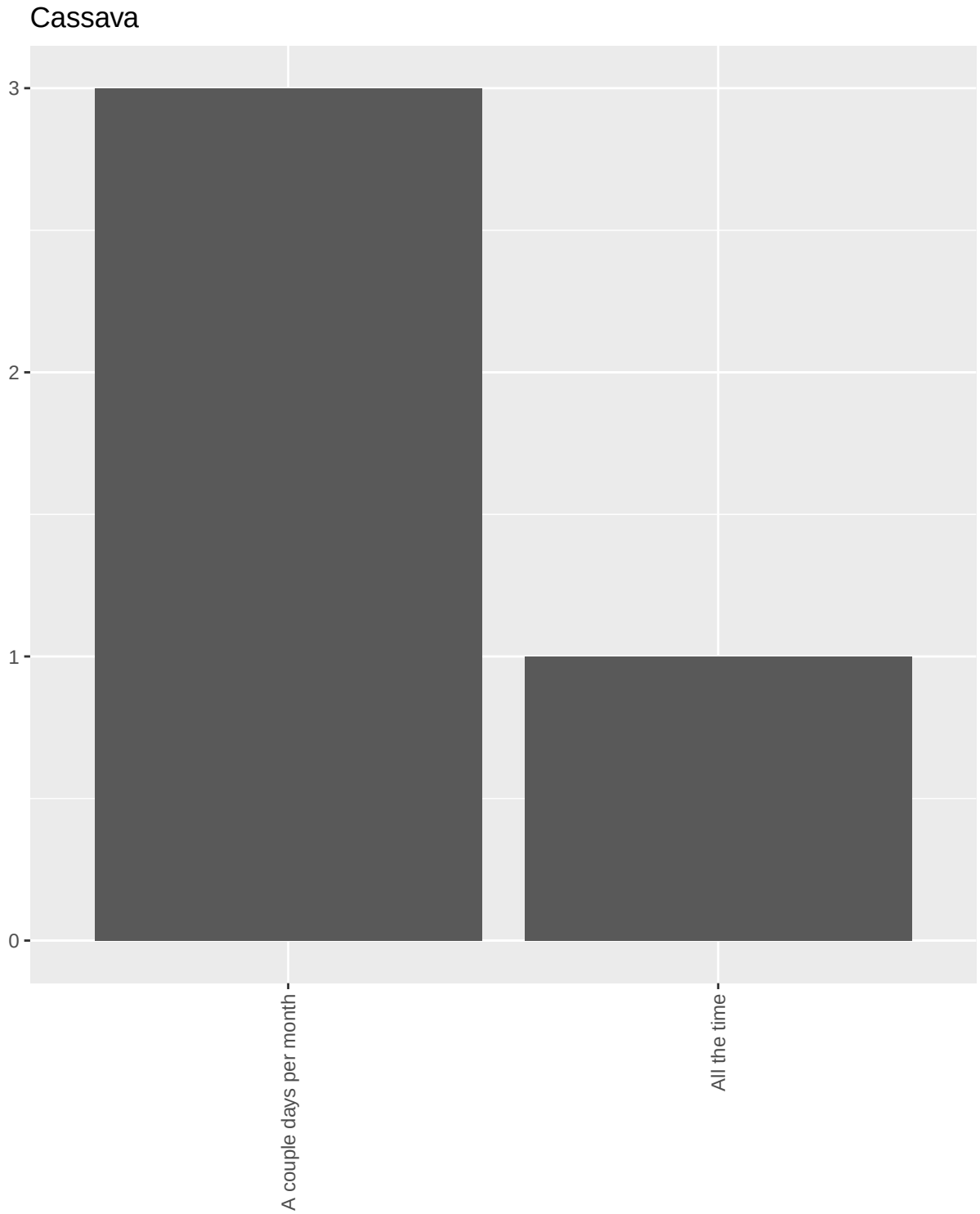

Bread (sliced, loaf, square, rolls, French)
6
4
2
0
A couple days per week
All the time

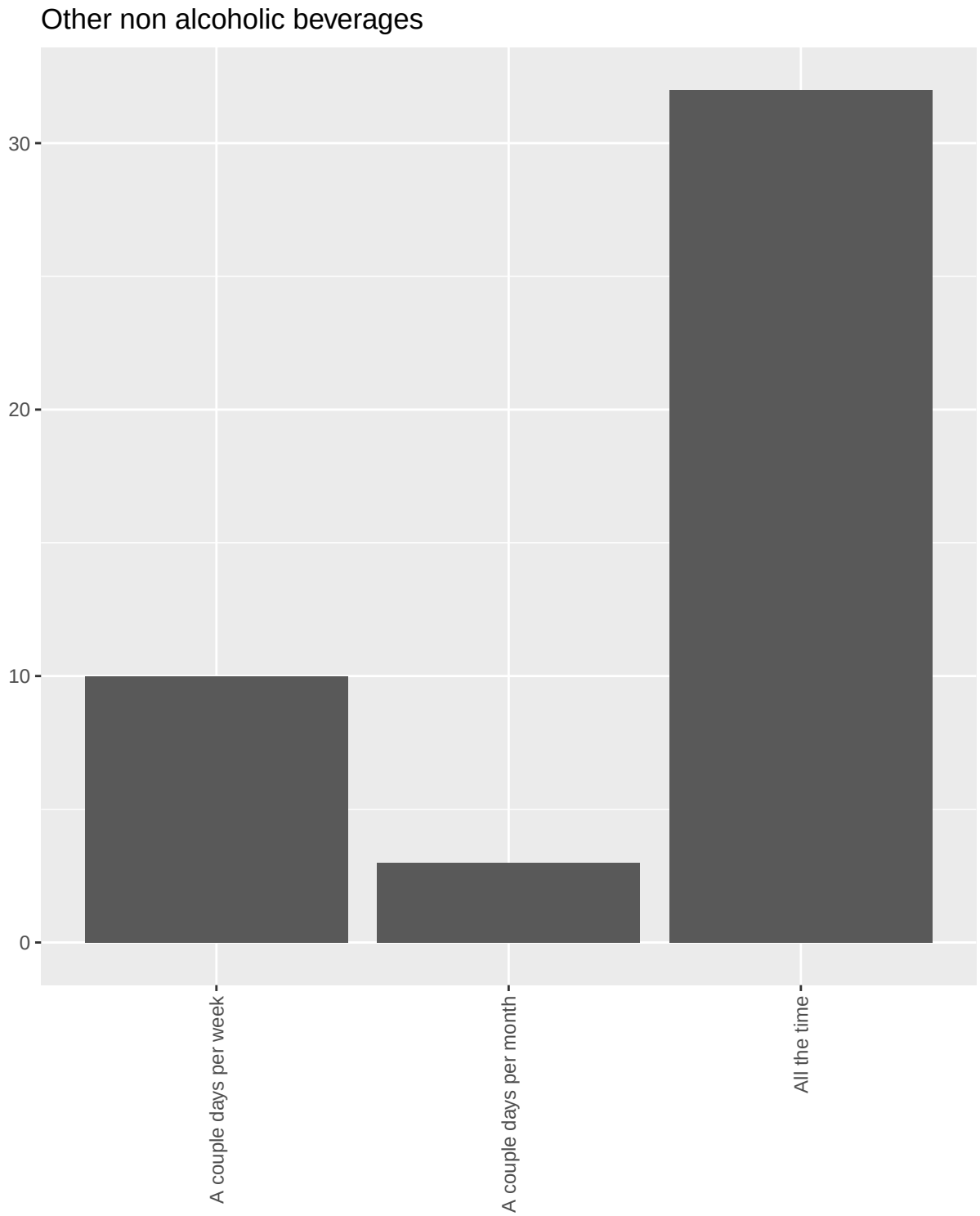

Doughnuts
15
10
5
0
A couple days per week
A couple days per month
All the time

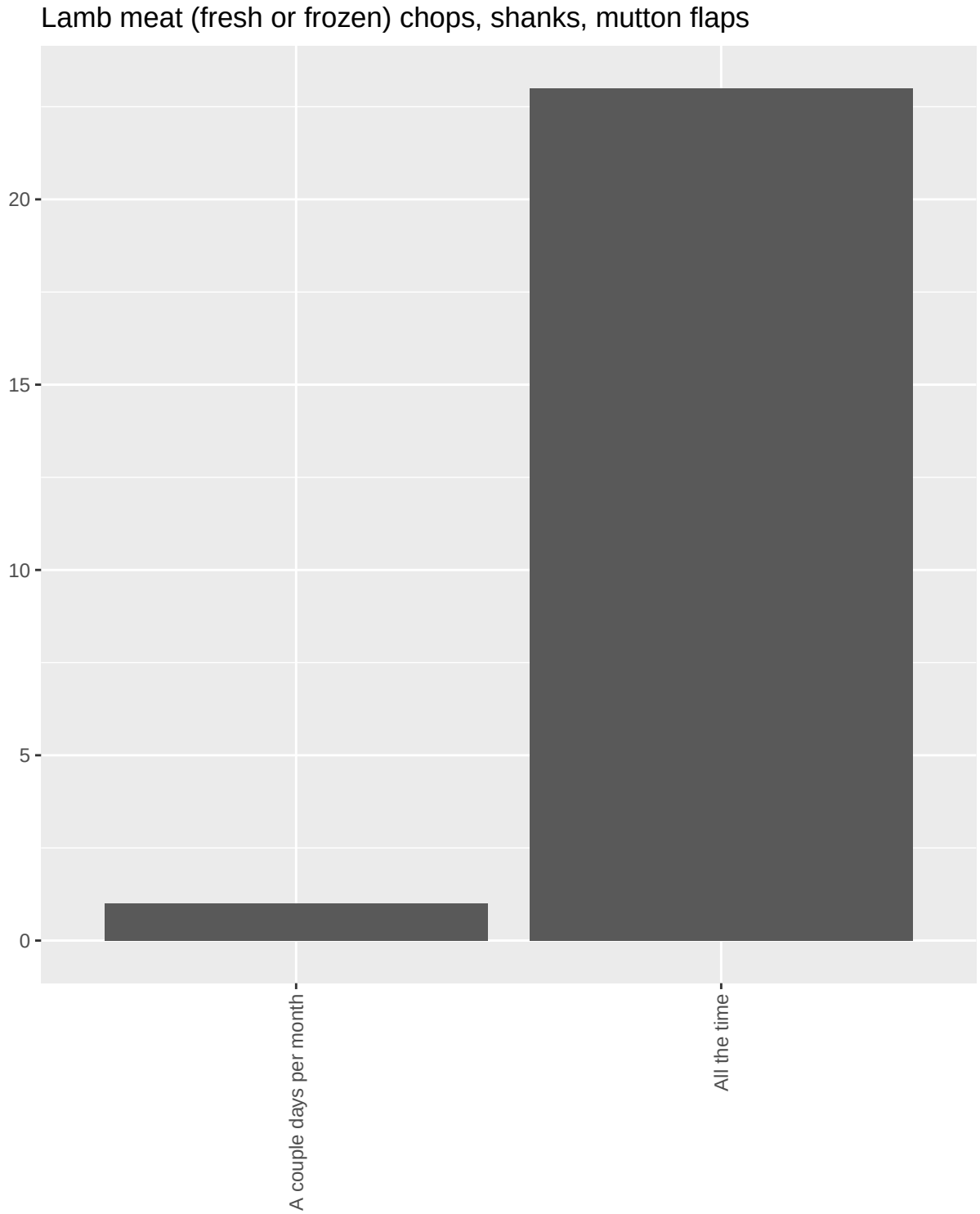

Diary liquid milk (Pauls milk, Anchor...) skimmed, whole
25
20
15
10
5
0
A couple days per month
All the time

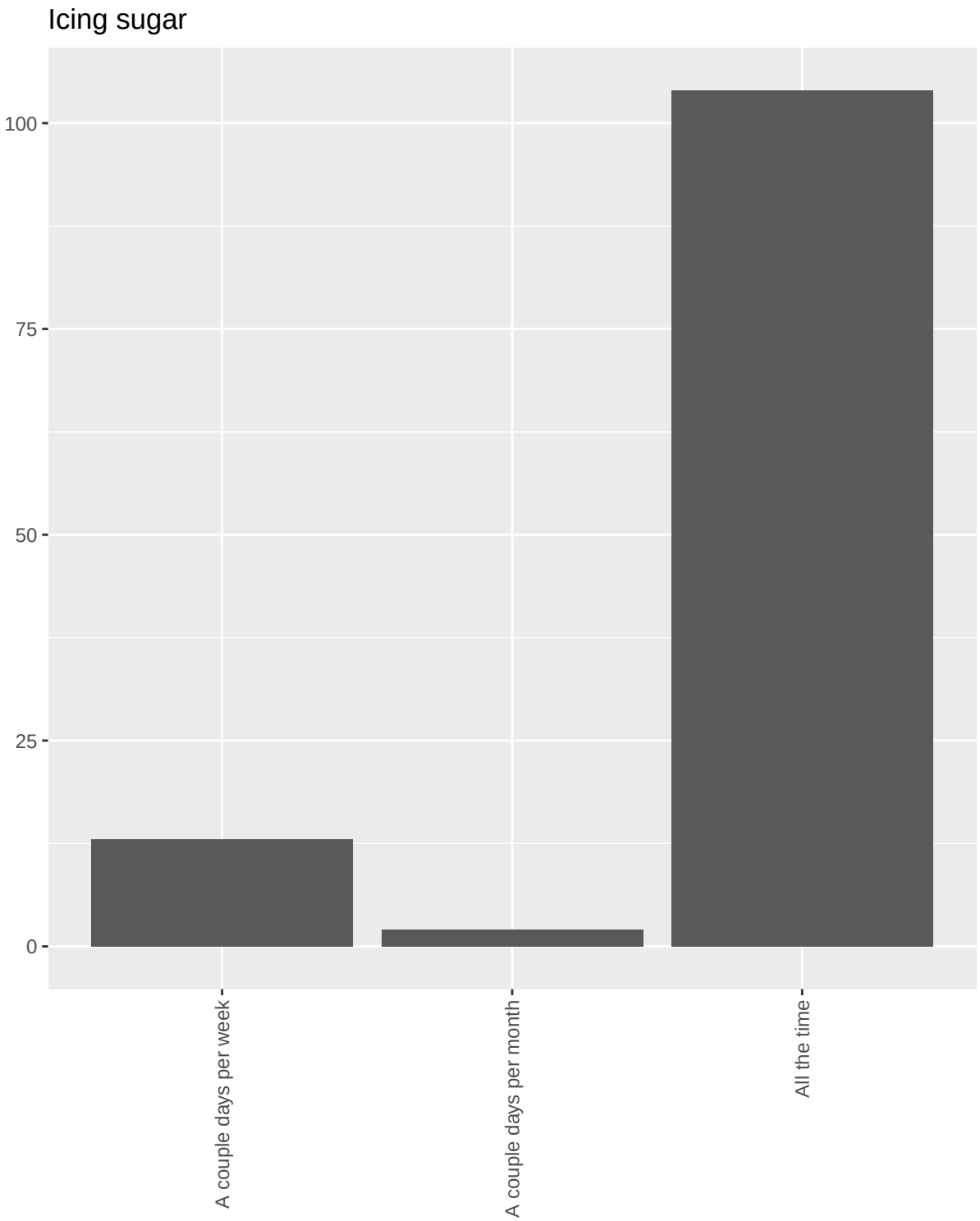

Milk based desserts (custard, pudding dairy based)
30
20
10
0
A couple days per week
All the time

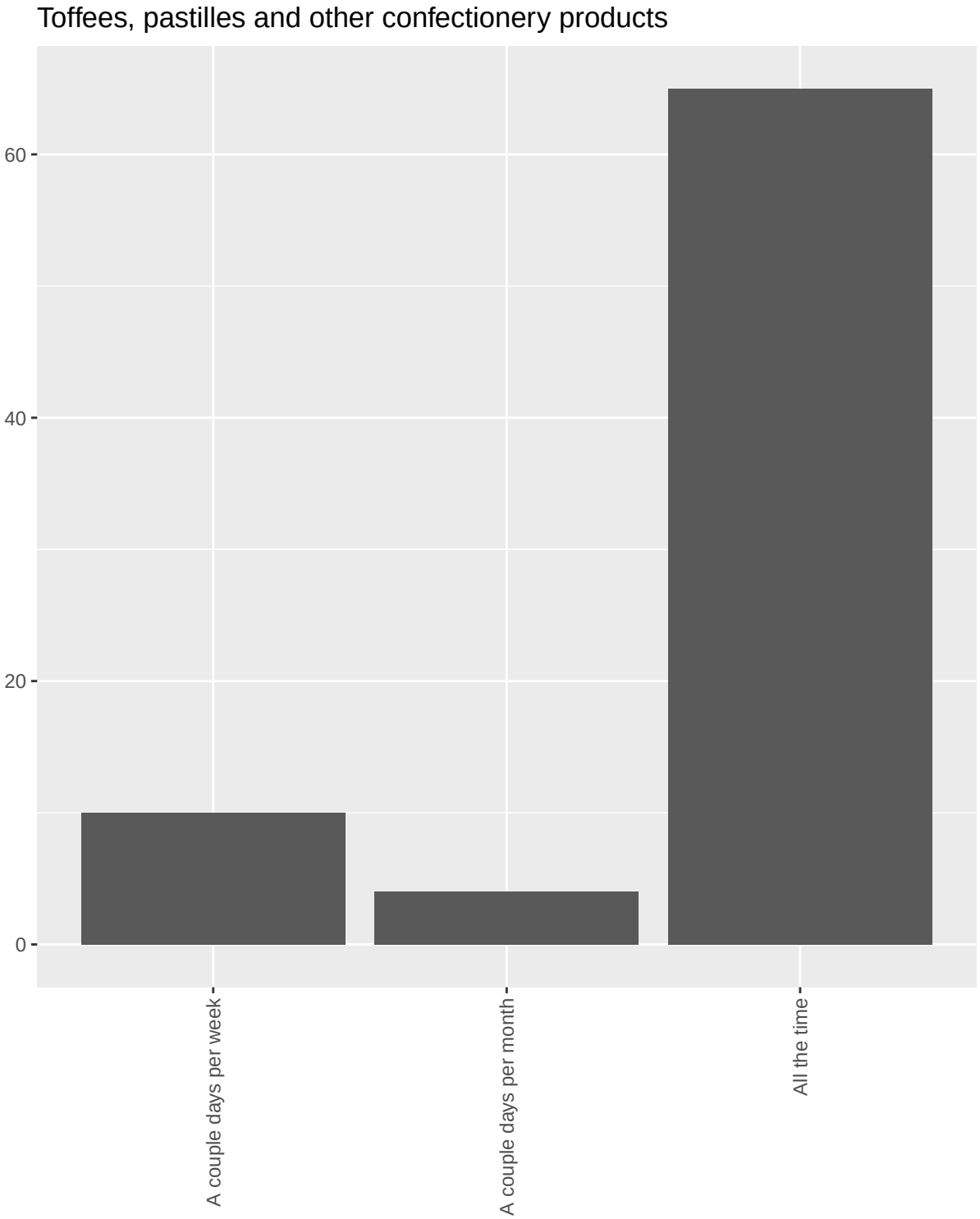

Cocoa based food (eg Nutella, marmite)
20
15
10
5
0
A couple days per week
A couple days per month
All the time

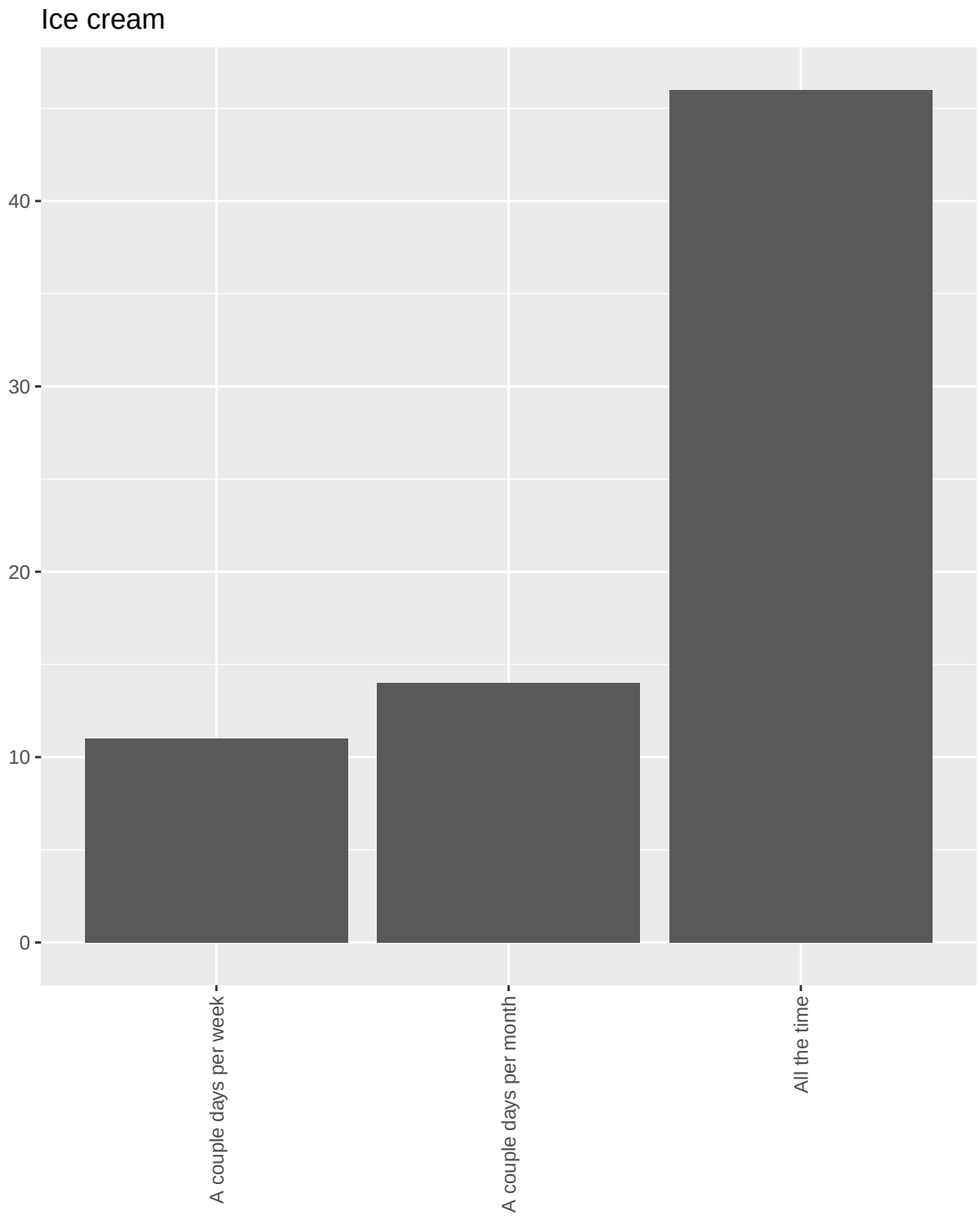

Cassava
3
2
1
0
A couple days per month
All the time

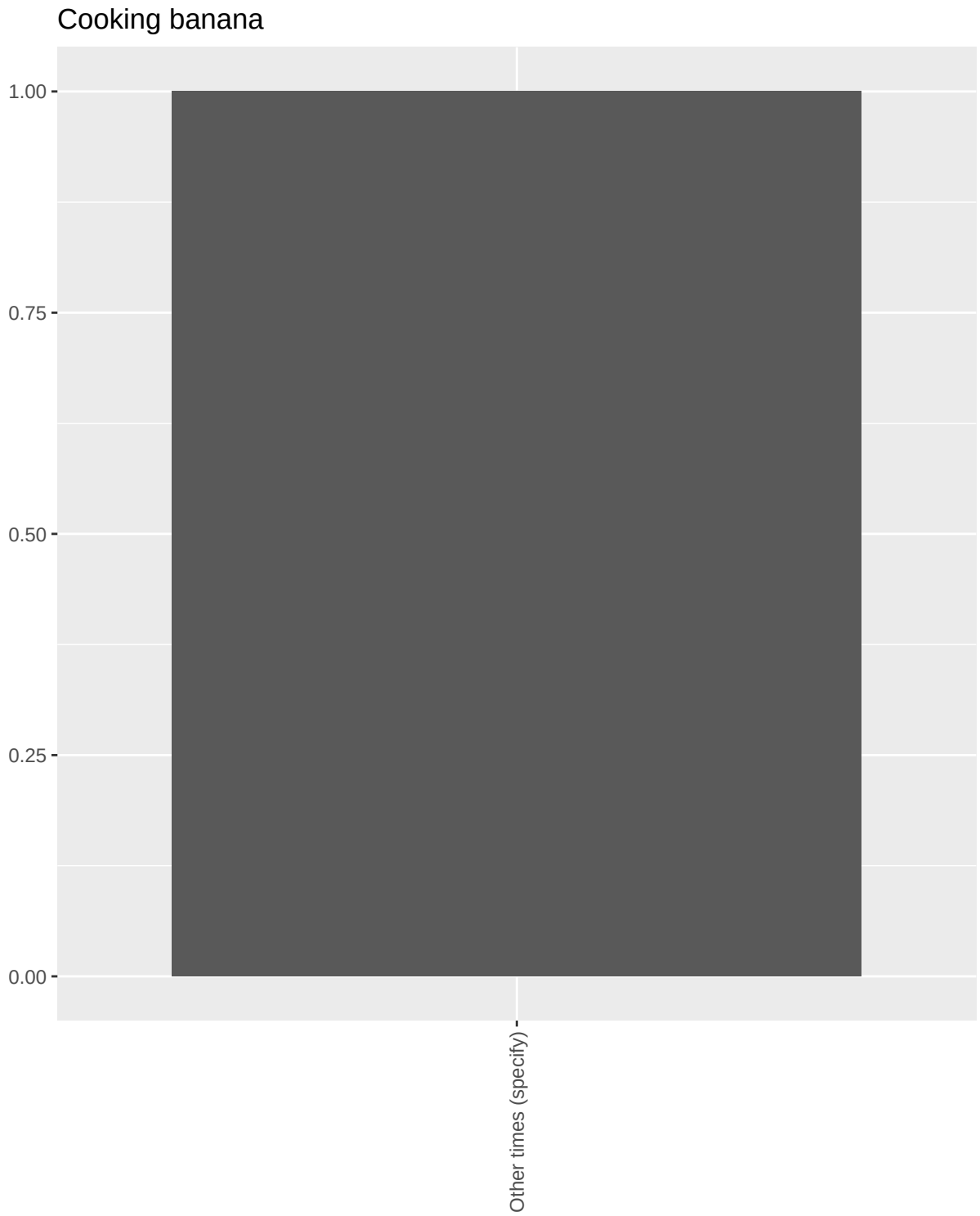

Other non alcoholic beverages
30
20
10
0
A couple days per week
A couple days per month
All the time

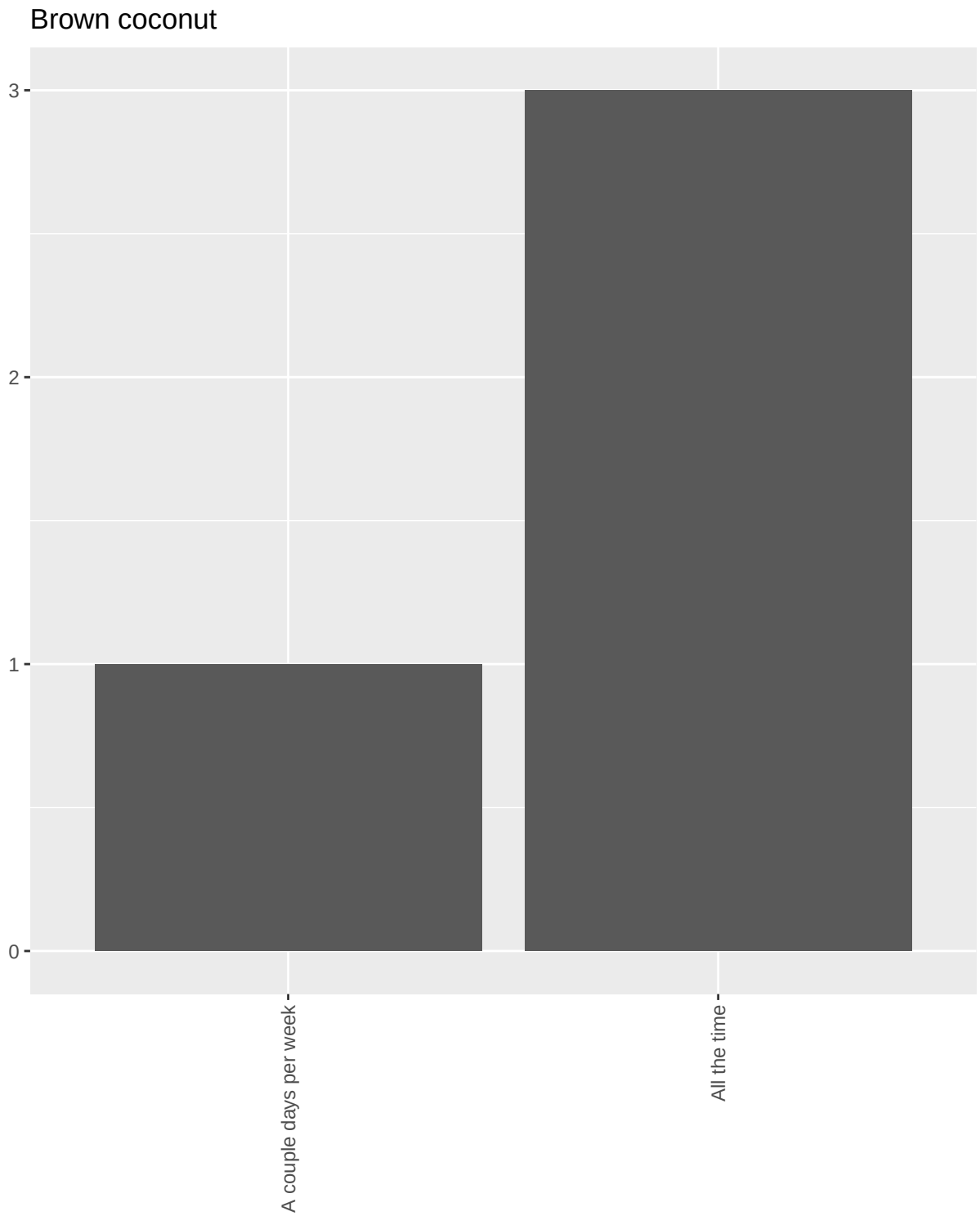

Lamb meat (fresh or frozen) chops, shanks, mutton flaps
20
15
10
5
0
A couple days per month
All the time

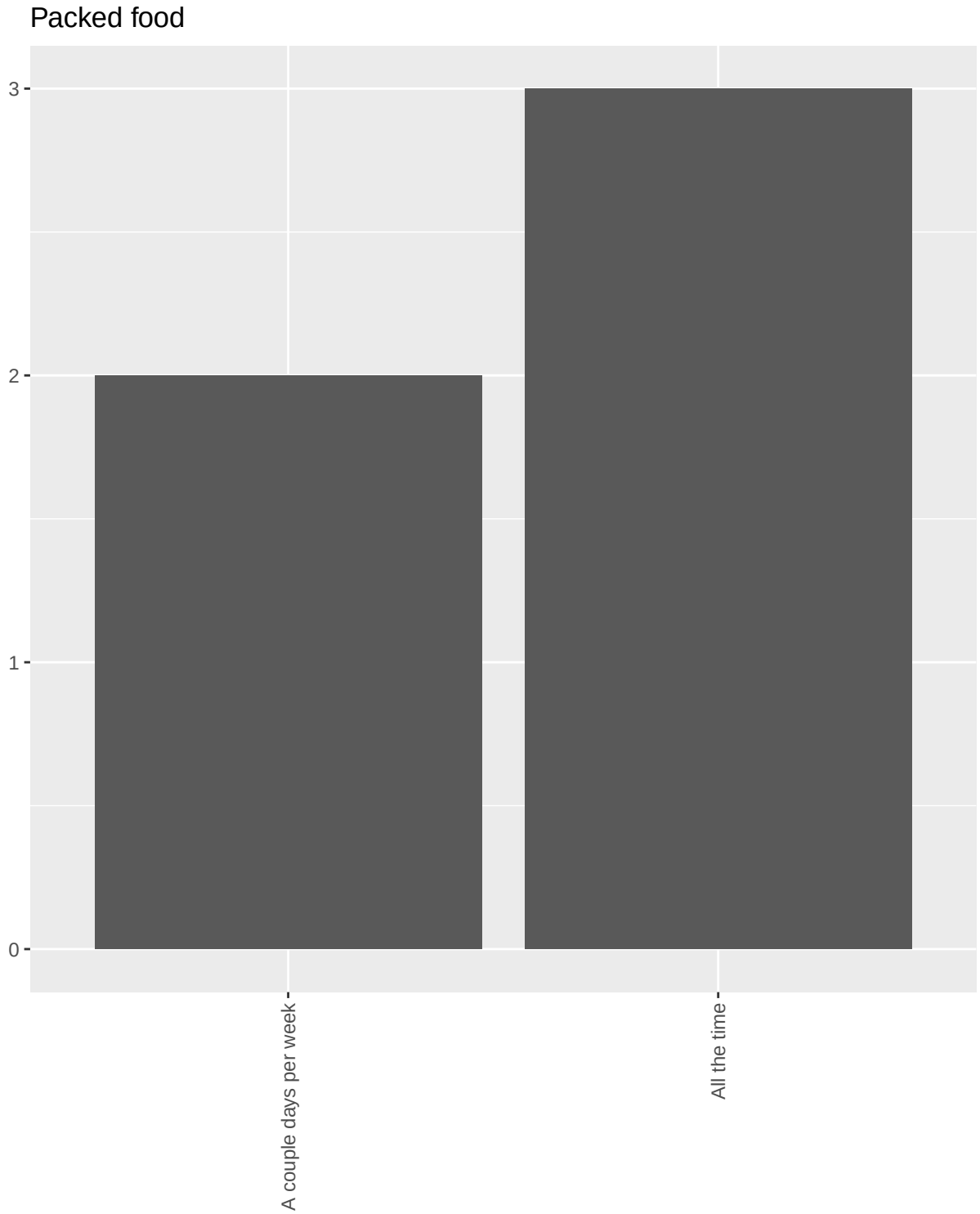

Icing sugar
100
75
50
25
0
A couple days per week
A couple days per month
All the time

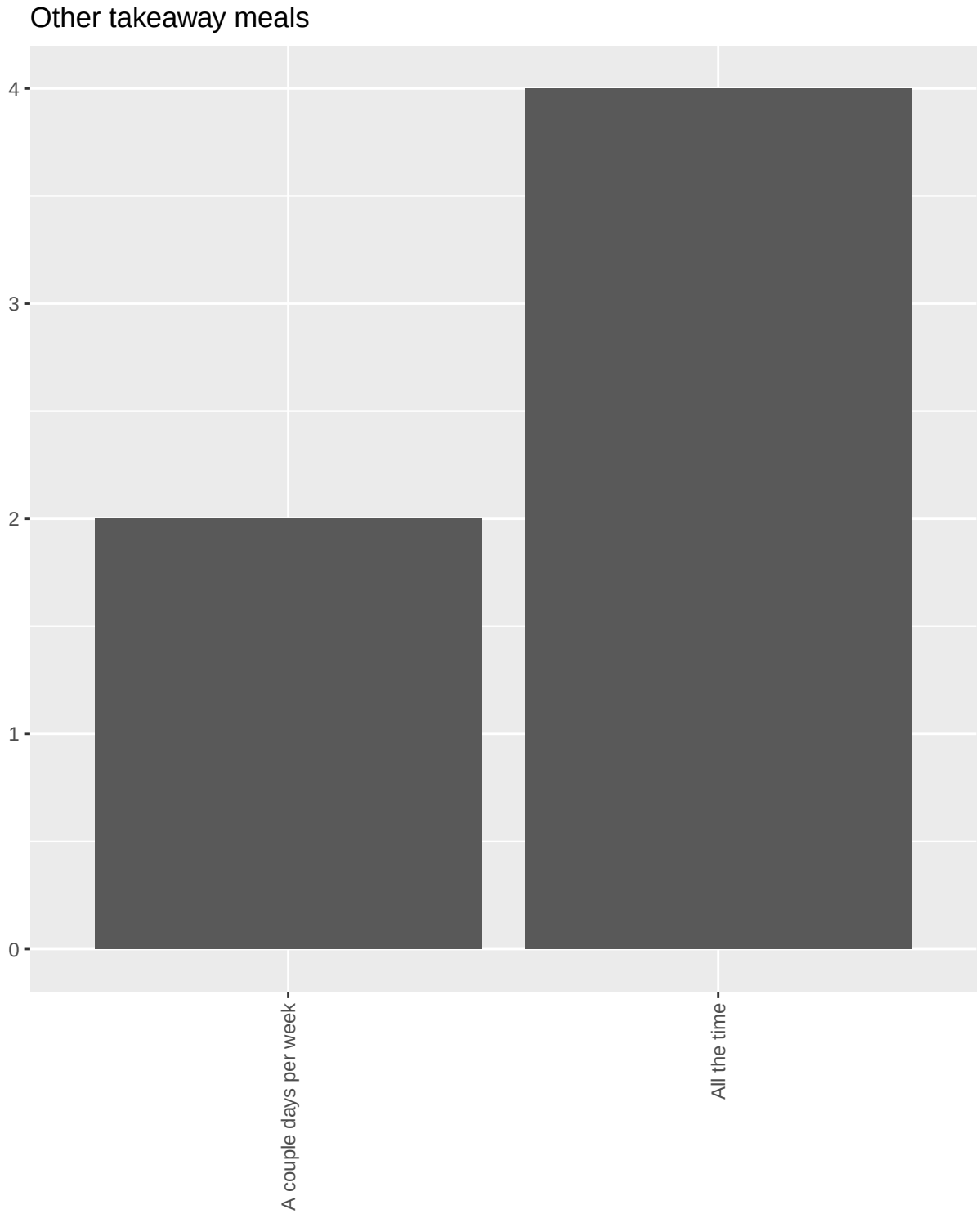

Toffees, pastilles and other confectionery products
60
40
20
0
A couple days per week
A couple days per month
All the time

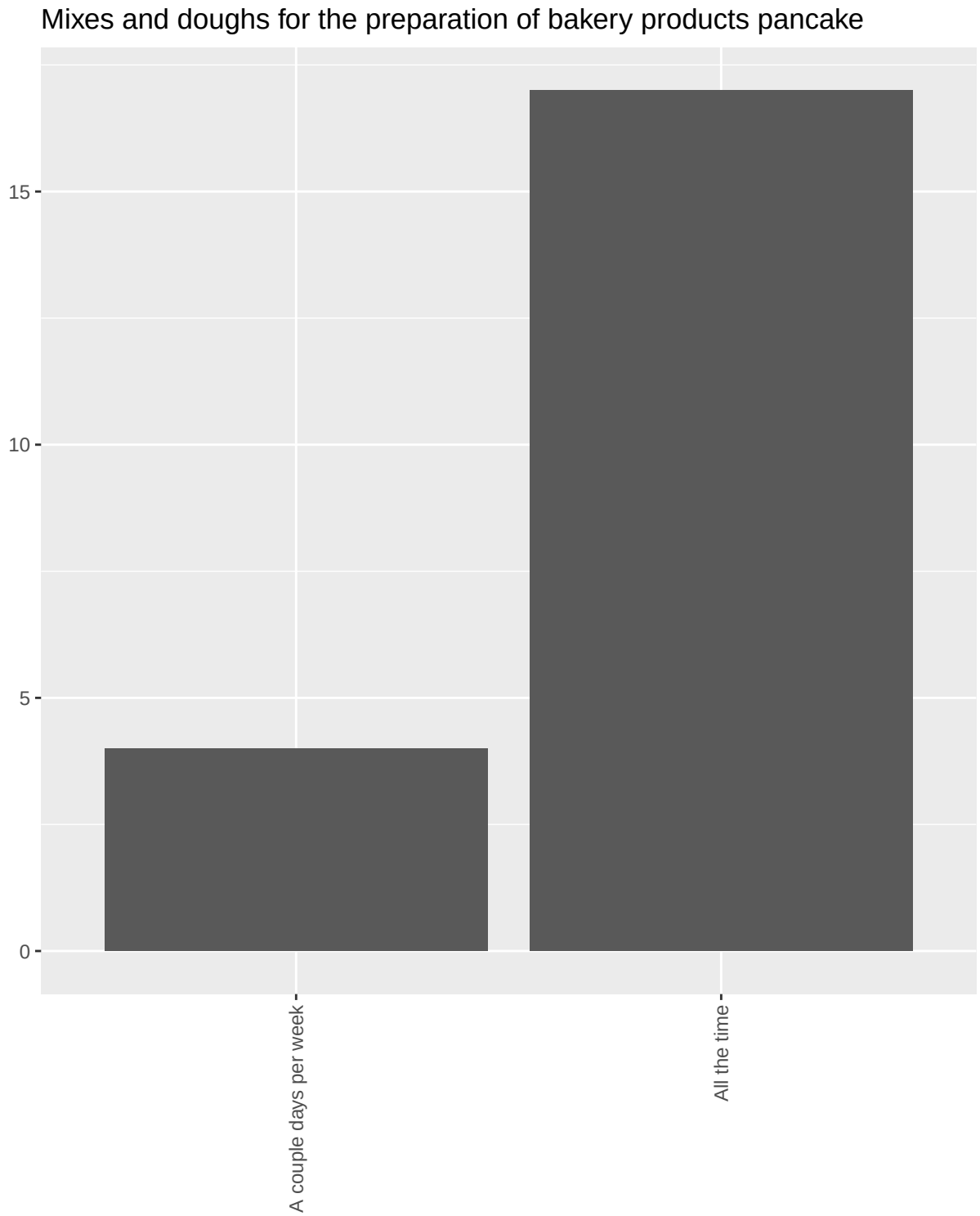

Ice cream
40
30
20
10
0
A couple days per week
A couple days per month
All the time

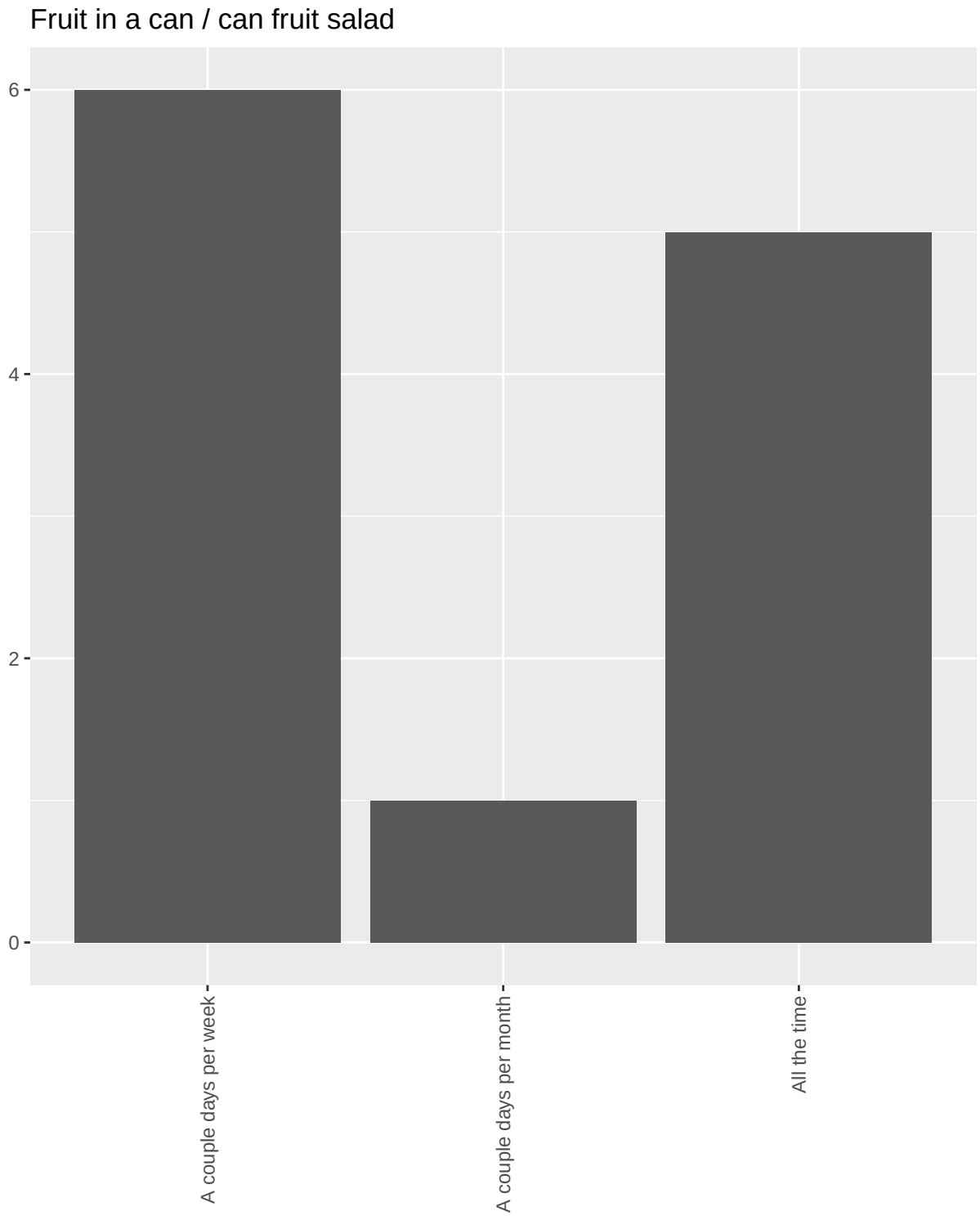

Cooking banana
1.00
0.75
0.50
0.25
0.00
Other times (specify)

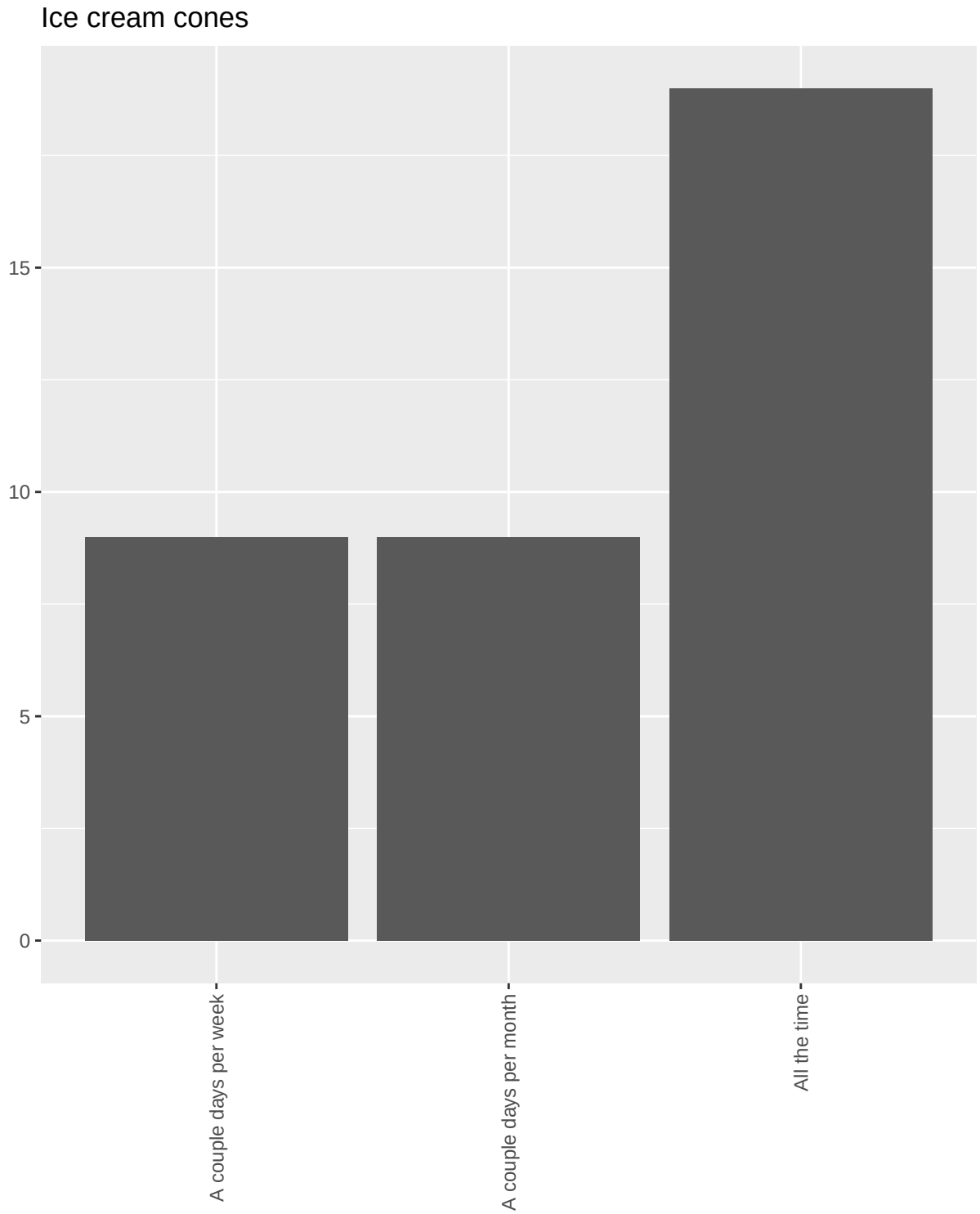

Brown coconut
3
2
1
0
A couple days per week
All the time

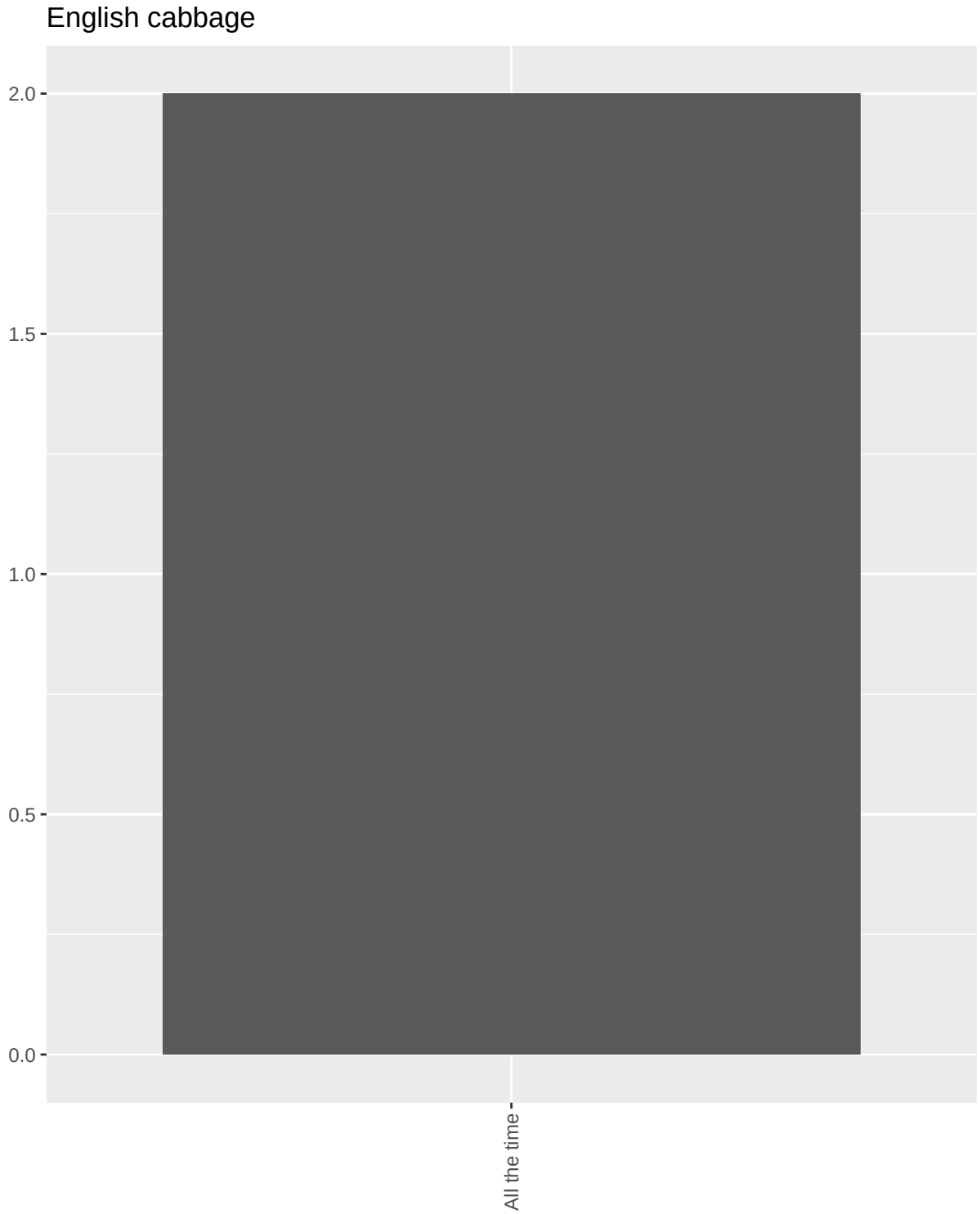

Packed food
3
2
1
0
A couple days per week
All the time

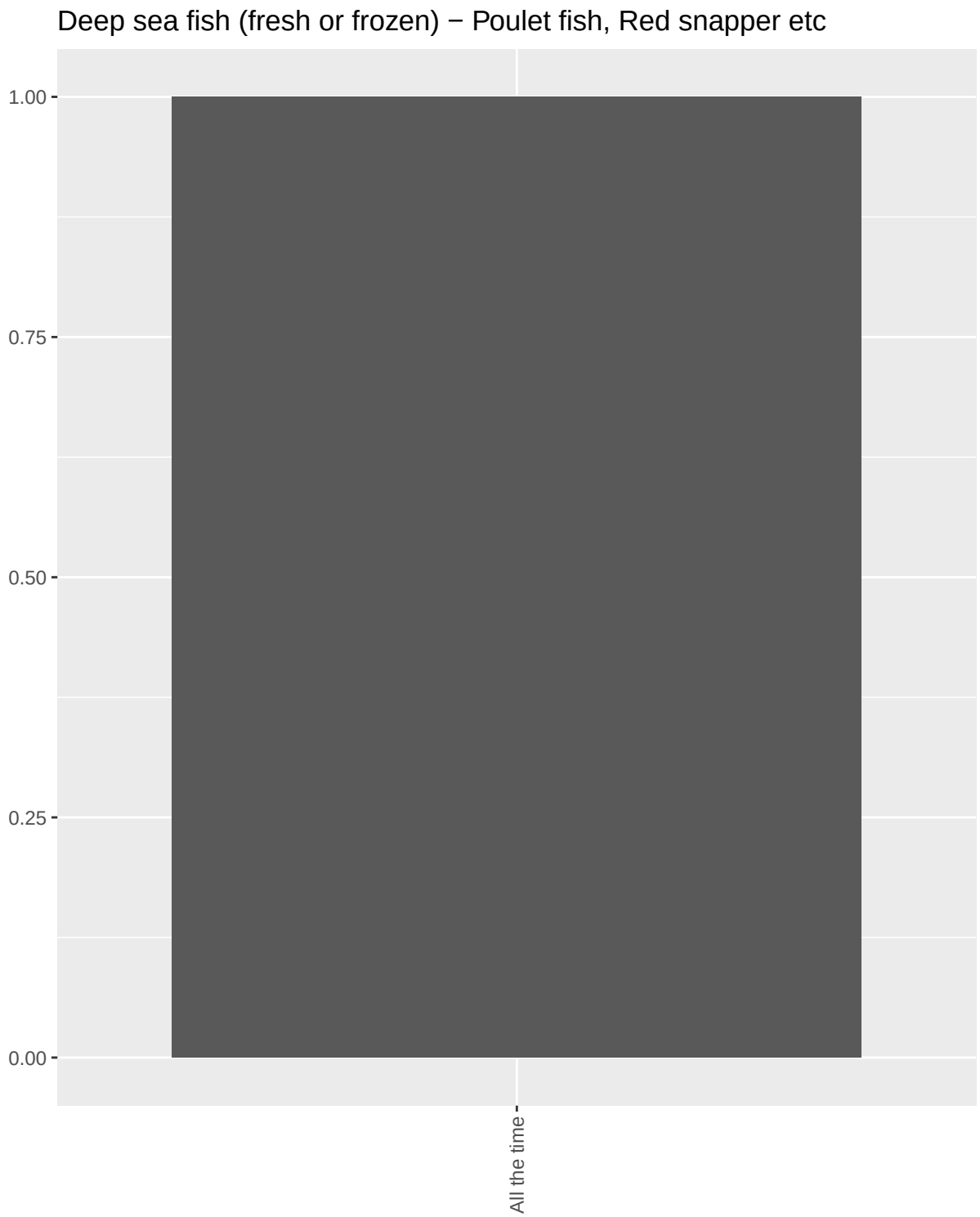

Other takeaway meals
4
3
2
1
0
A couple days per week
All the time

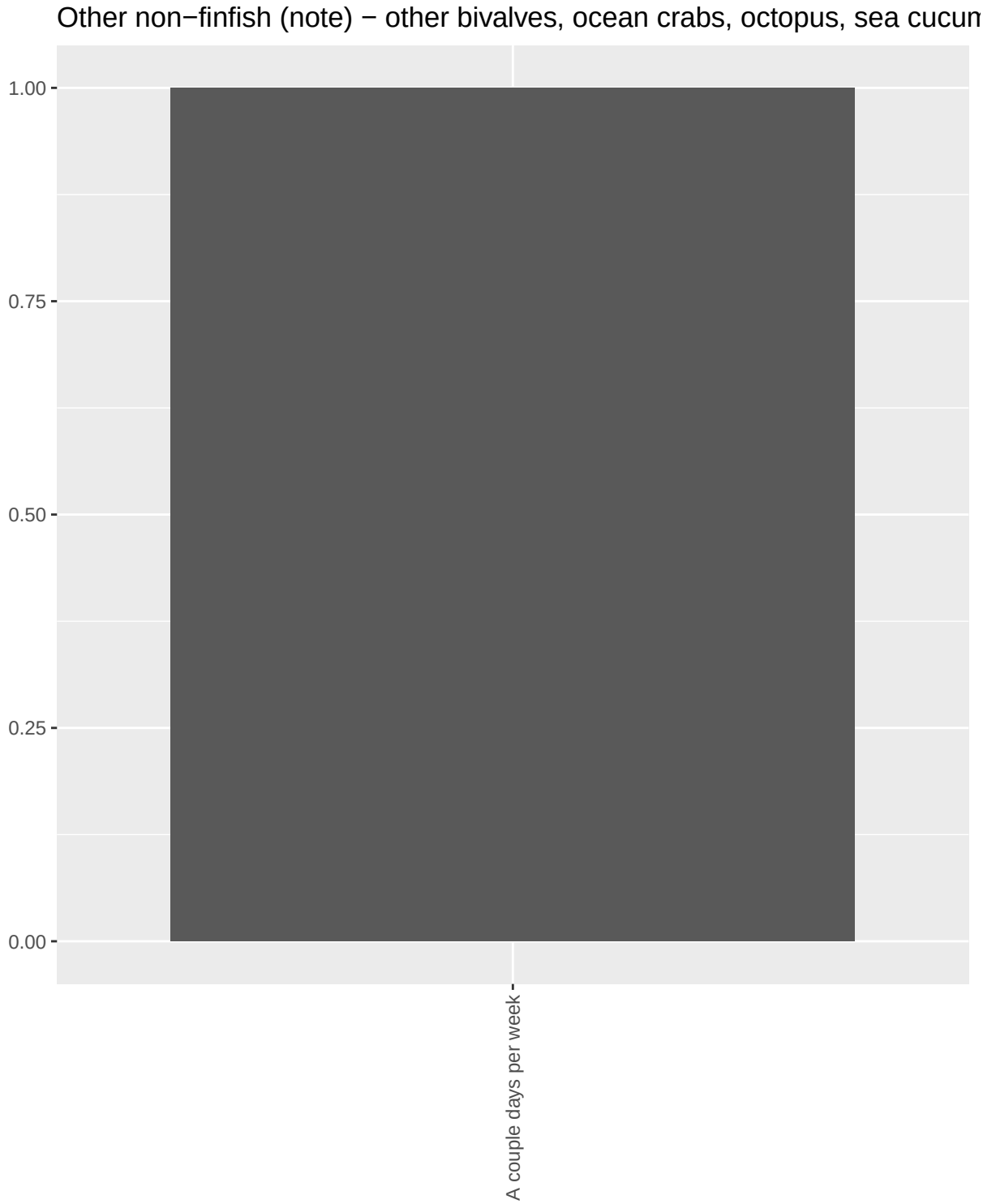

Mixes and doughs for the preparation of bakery products pancake
15
10
5
0
A couple days per week
All the time

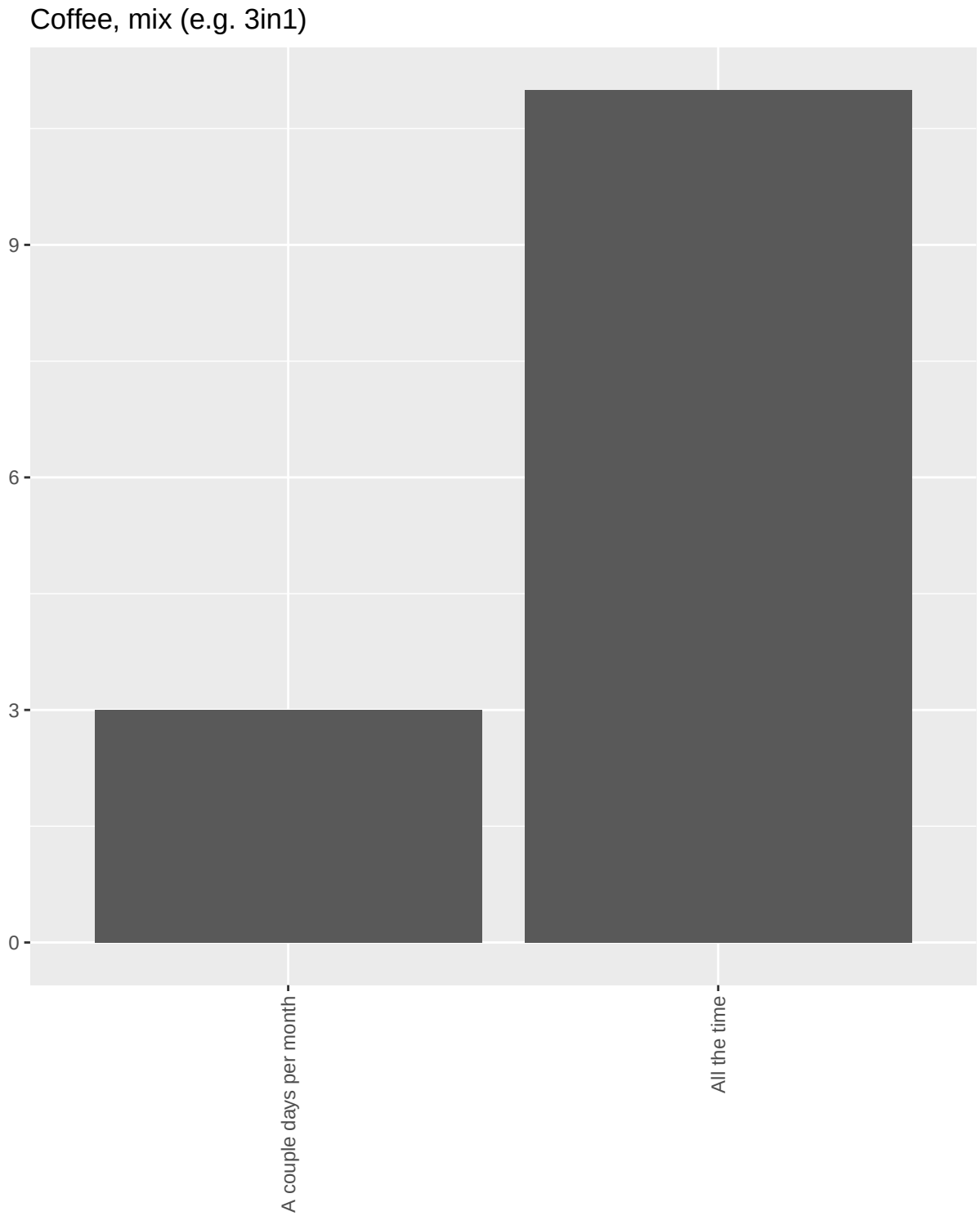

Fruit in a can / can fruit salad
6
4
2
0
A couple days per week
A couple days per month
All the time

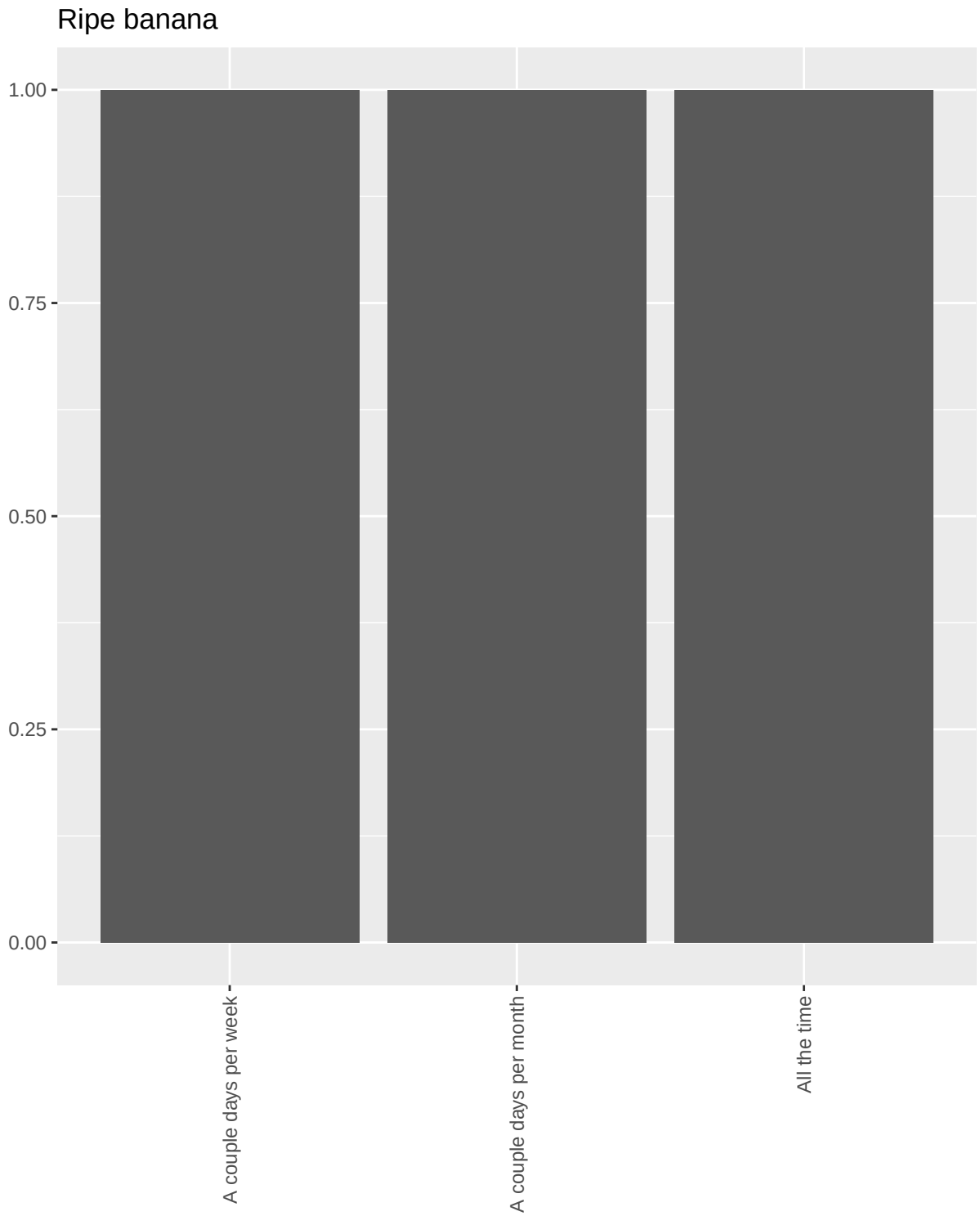

Ice cream cones
15
10
5
0
A couple days per week
A couple days per month
All the time

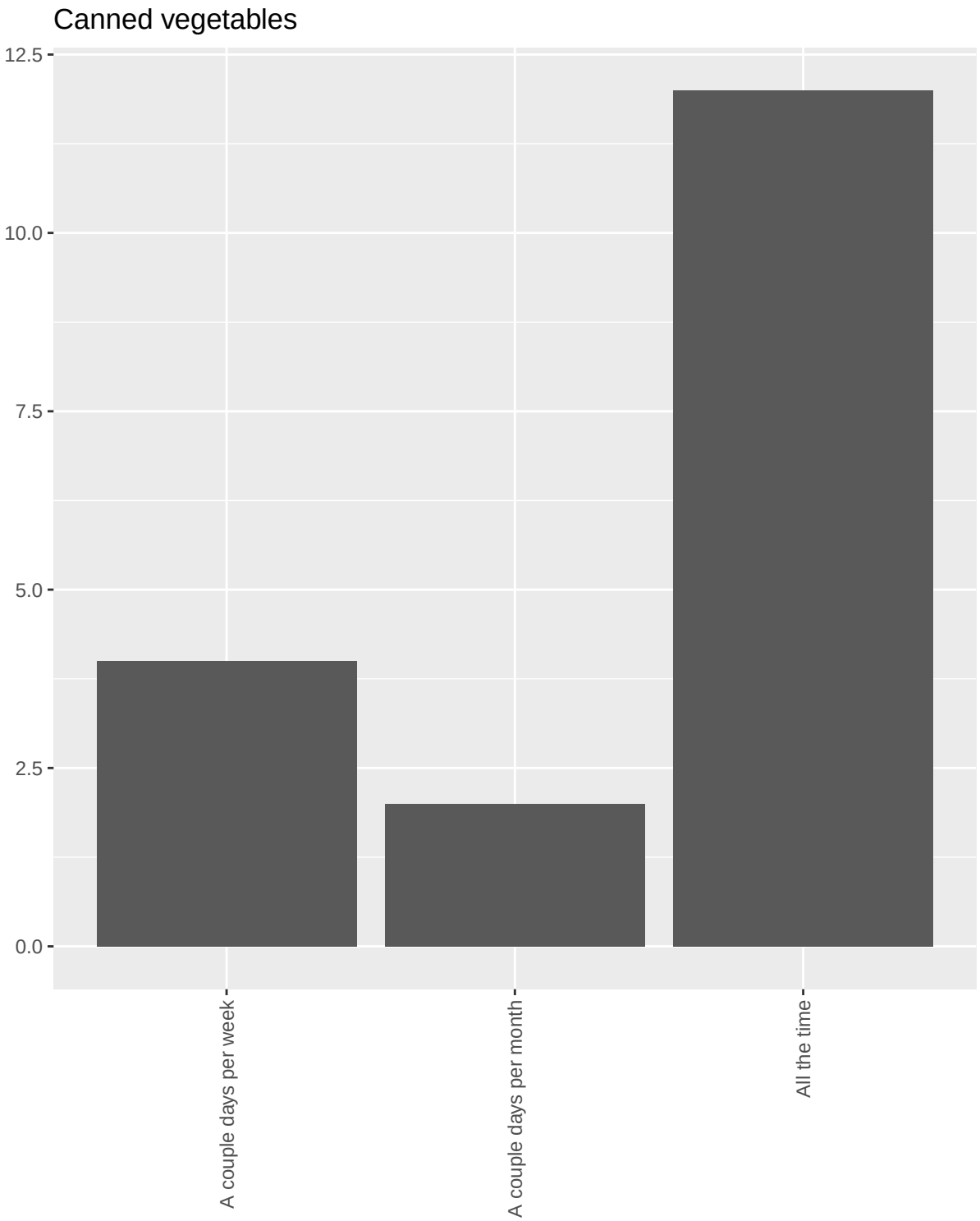

English cabbage
2.0
1.5
1.0
0.5
0.0
All the time

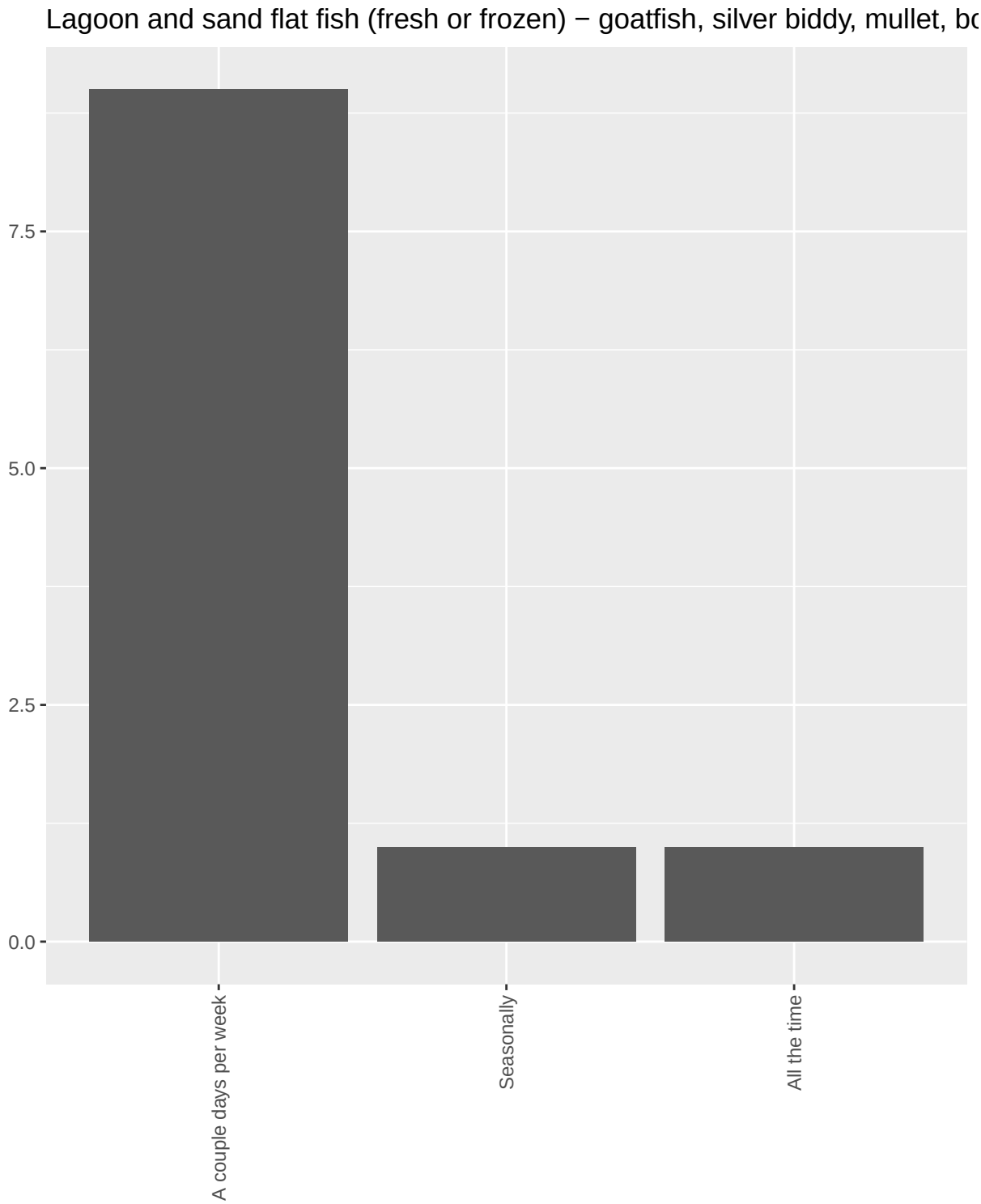

Deep sea fish (fresh or frozen) − Poulet fish, Red snapper etc
1.00
0.75
0.50
0.25
0.00
All the time

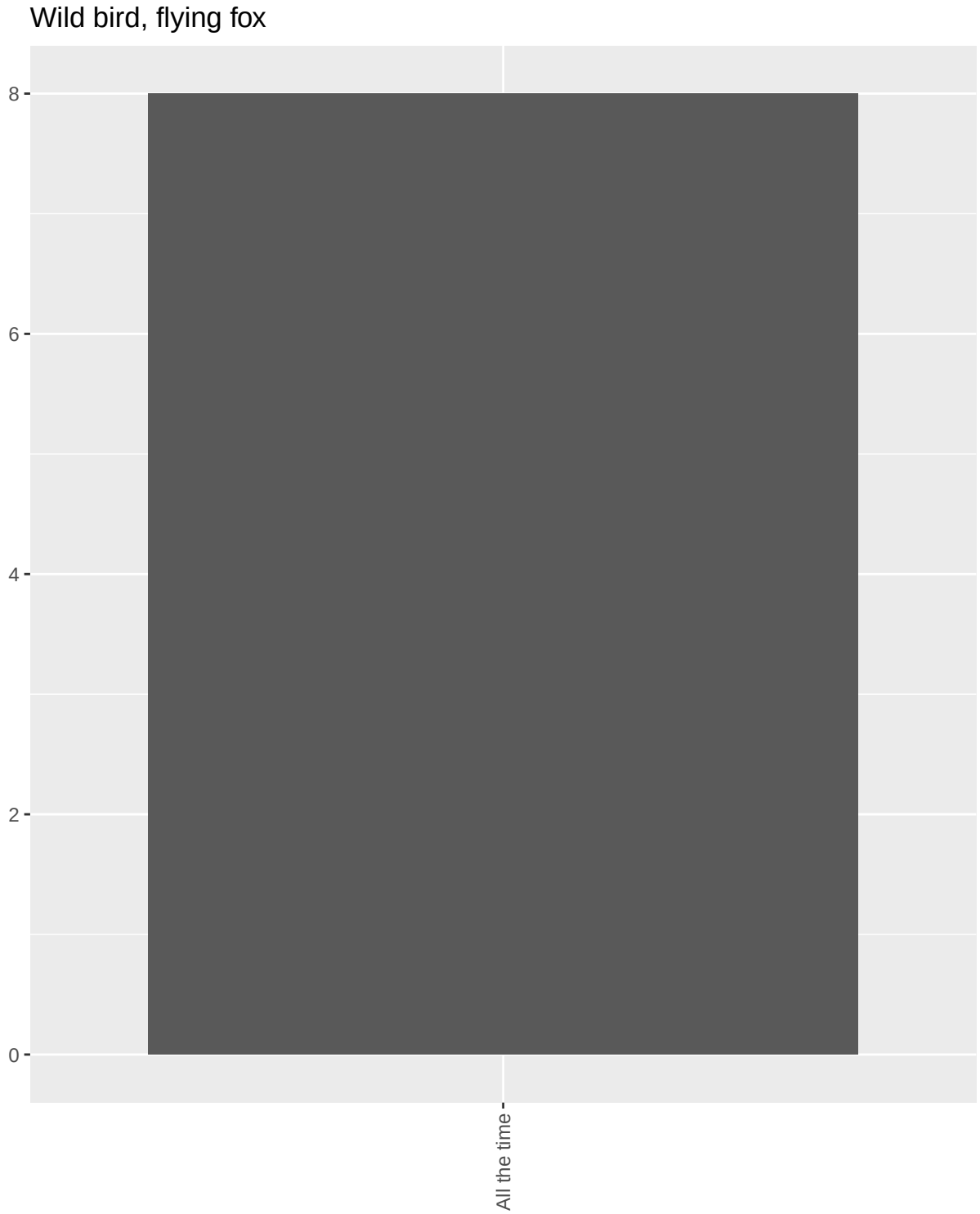

Other non−finfish (note) − other bivalves, ocean crabs, octopus, sea cucun
1.00
0.75
0.50
0.25
0.00
A couple days per week

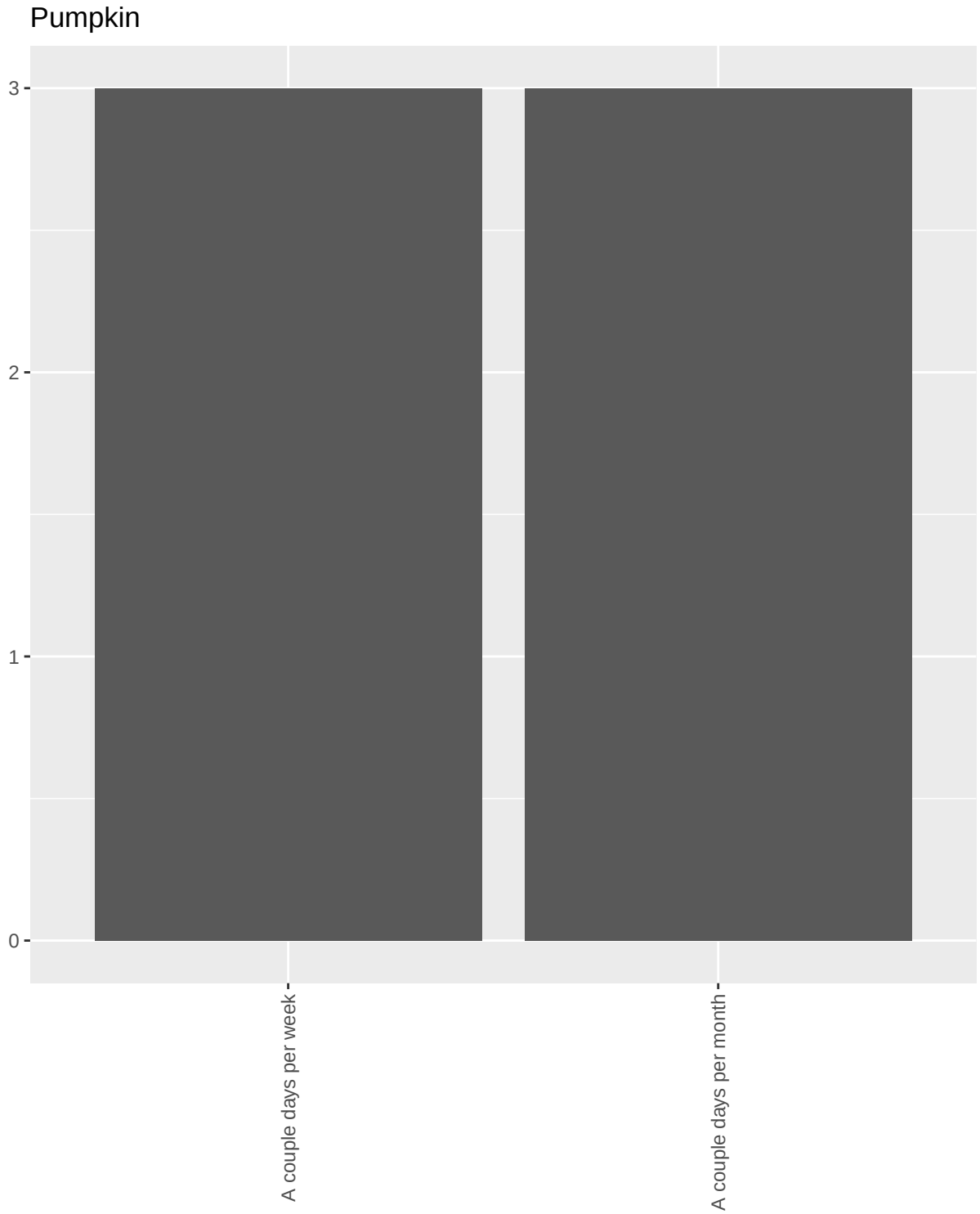

Coffee, mix (e.g. 3in1)
9
6
3
0
A couple days per month
All the time

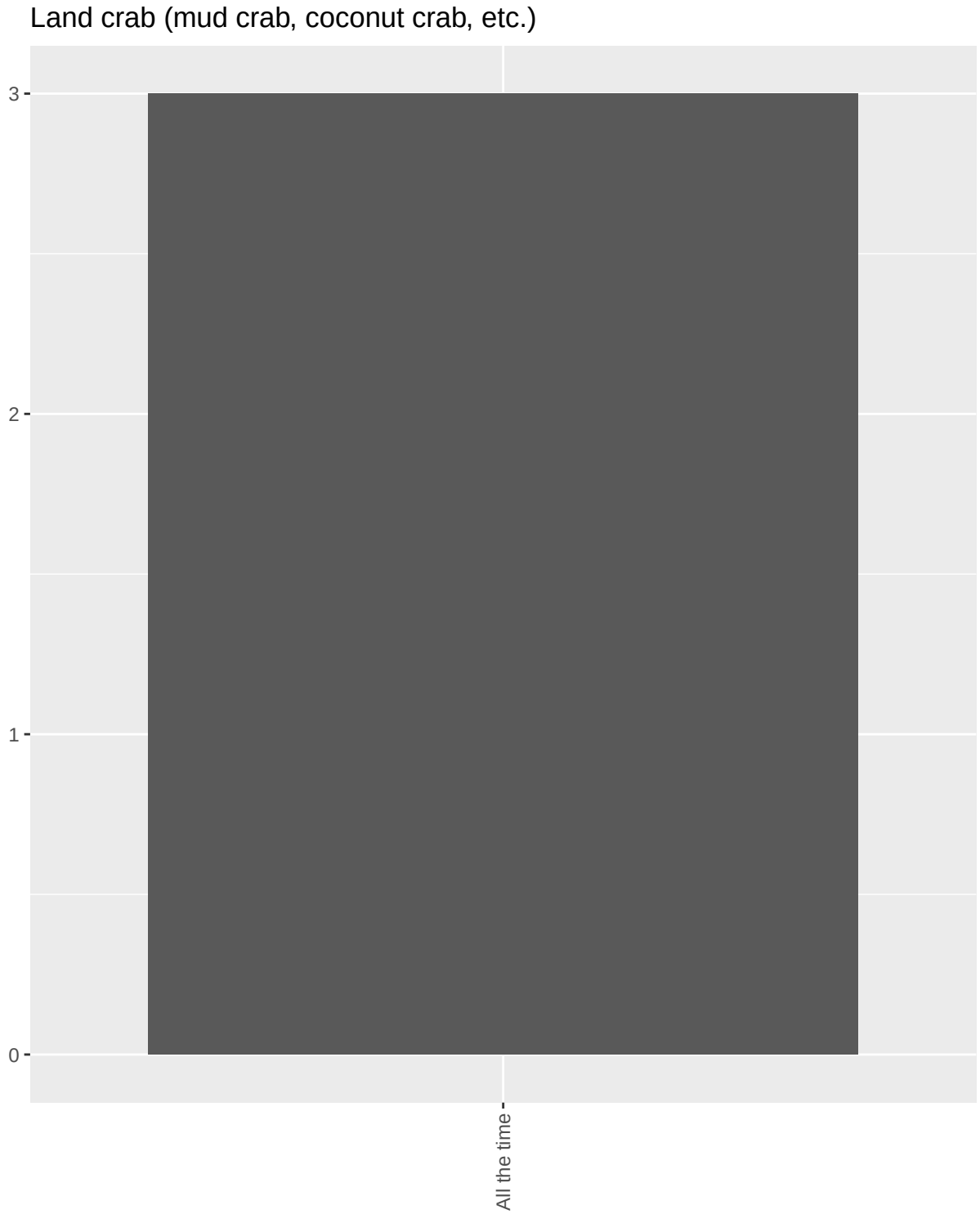

Ripe banana
1.00
0.75
0.50
0.25
0.00
A couple days per week
A couple days per month
All the time

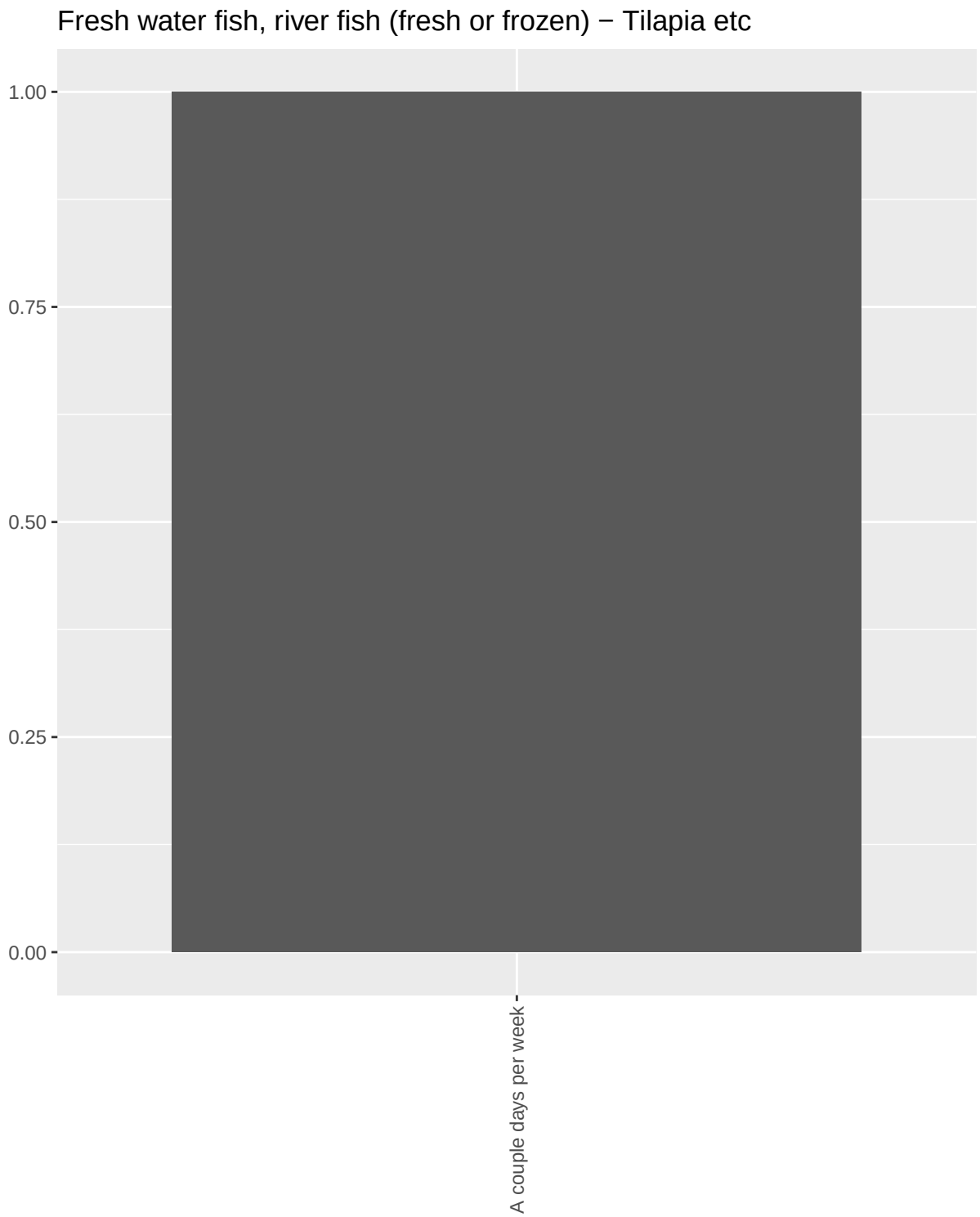

Canned vegetables
12.5
10.0
7.5
5.0
2.5
0.0
A couple days per week
A couple days per month
All the time

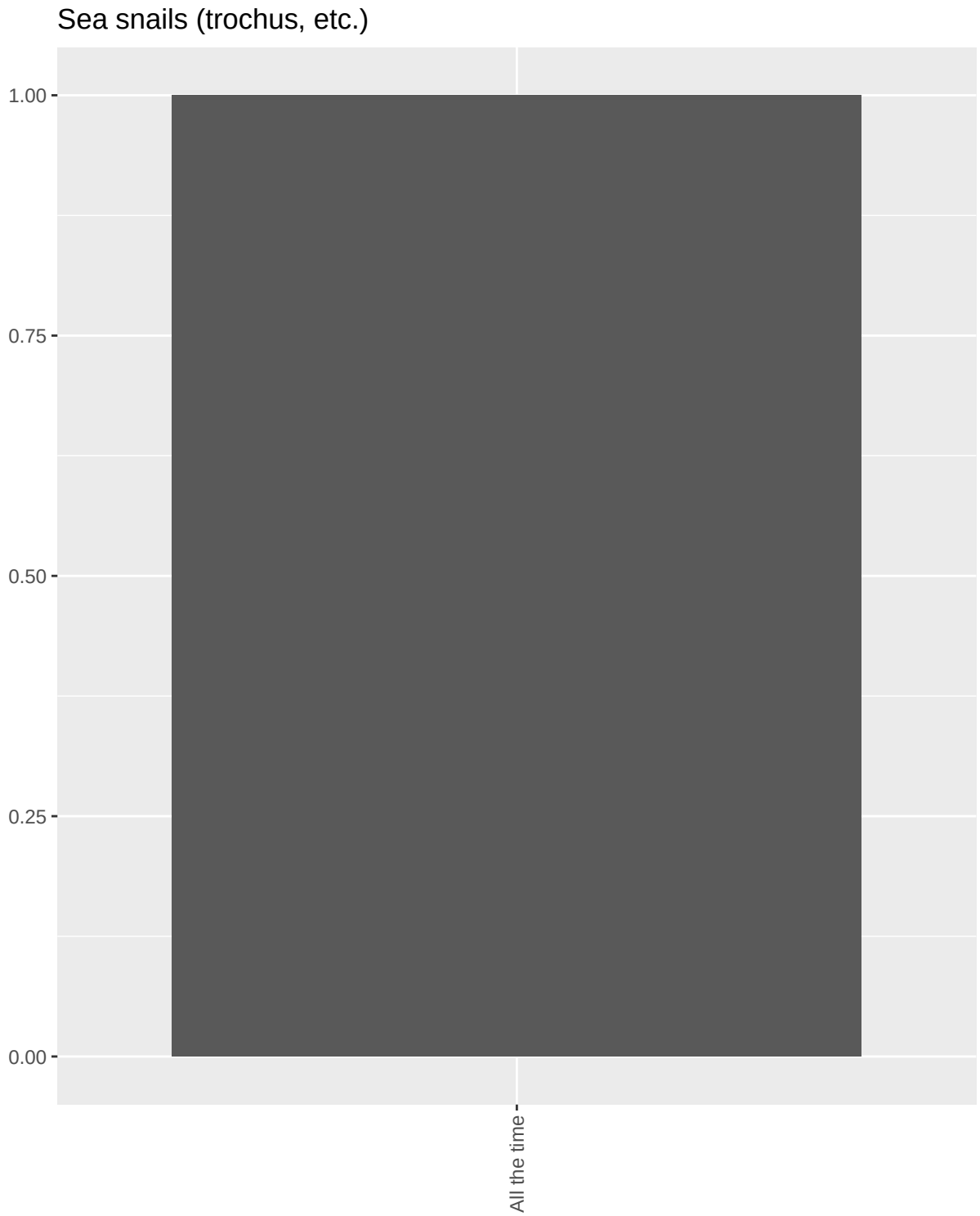

Lagoon and sand flat fish (fresh or frozen) − goatfish, silver biddy, mullet, bo
7.5
5.0
2.5
0.0
A couple days per week
Seasonally
All the time

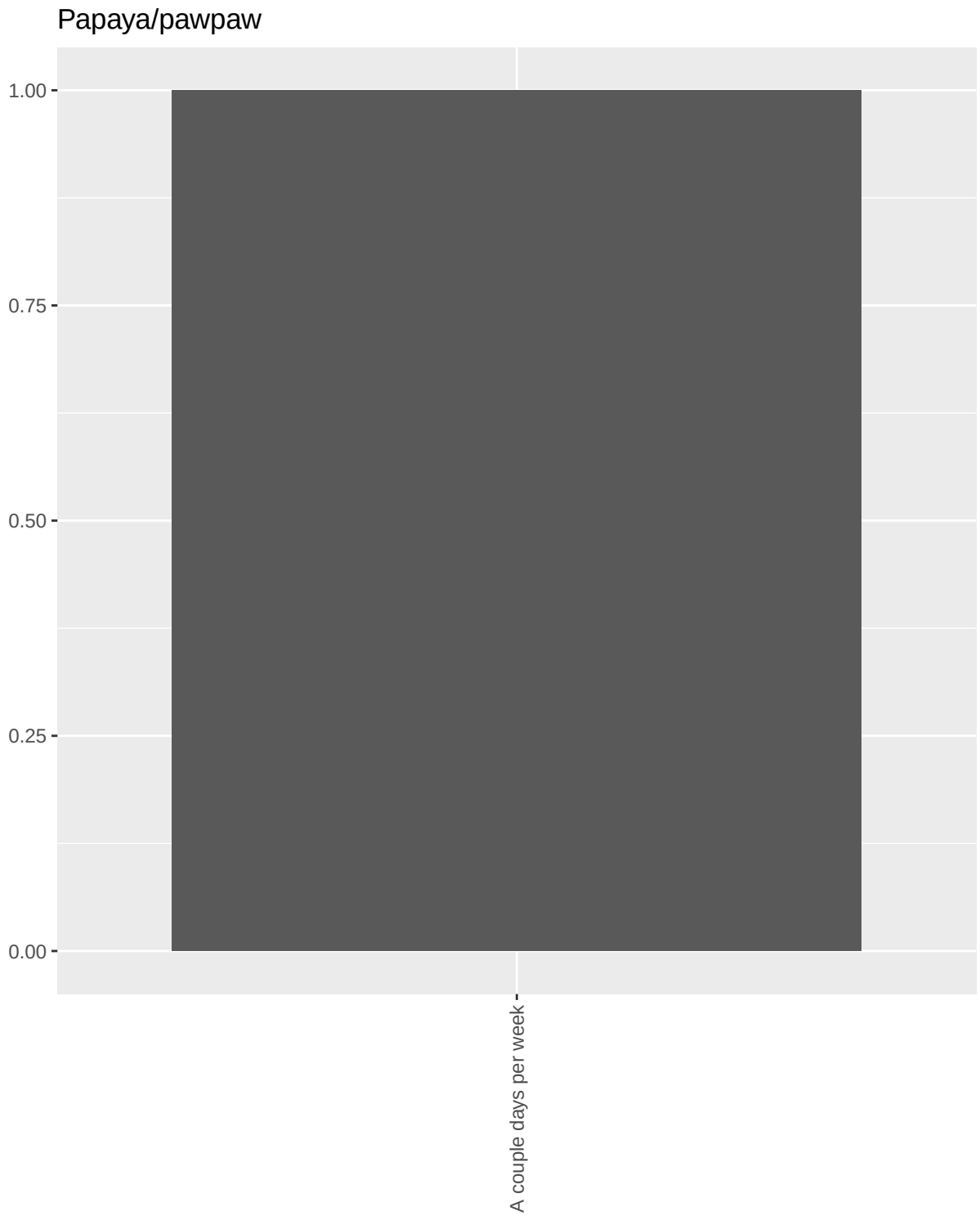

Wild bird, flying fox
8
6
4
2
0
All the time

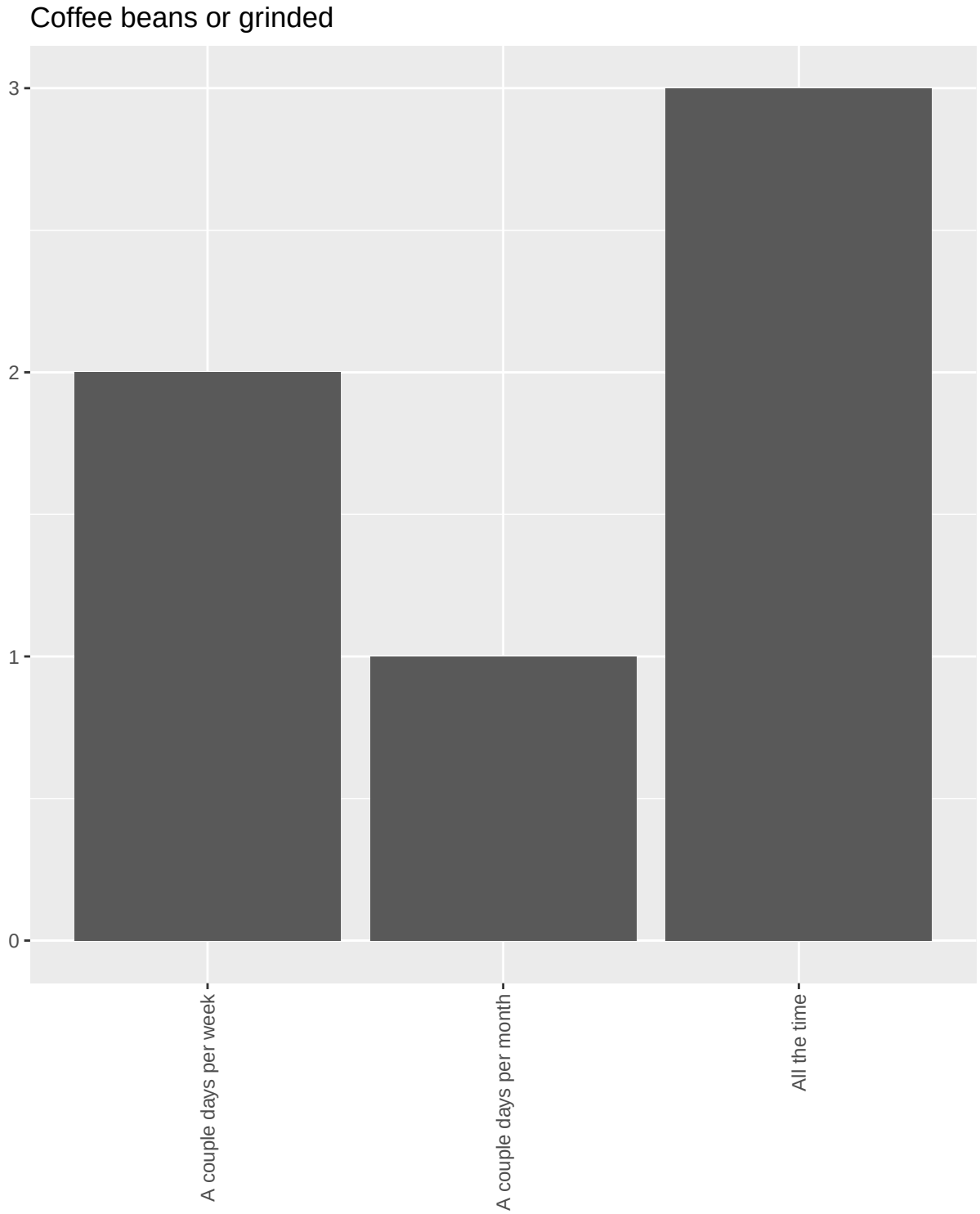

Pumpkin
3
2
1
0
A couple days per week
A couple days per month

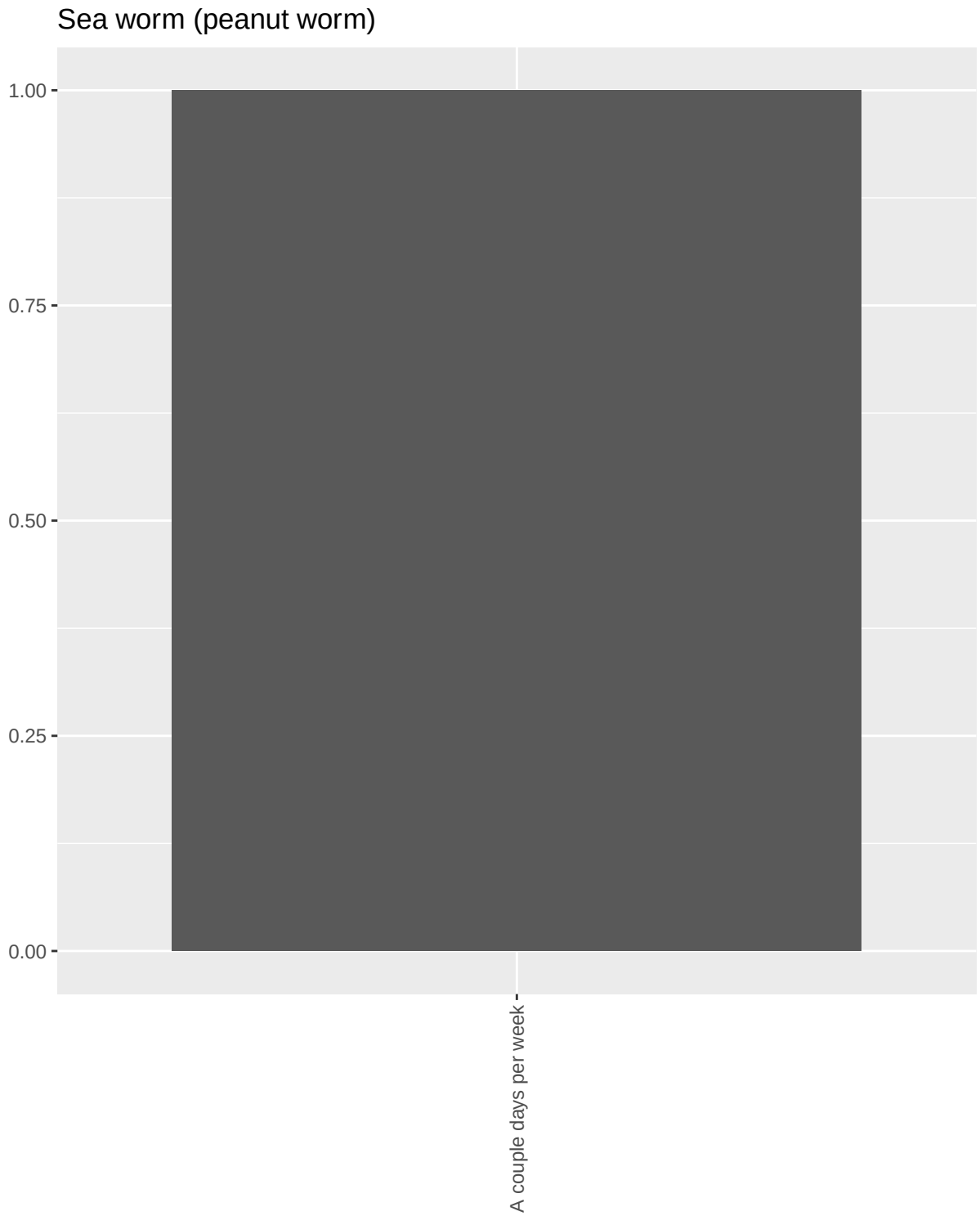

Land crab (mud crab, coconut crab, etc.)
3
2
1
0
All the time

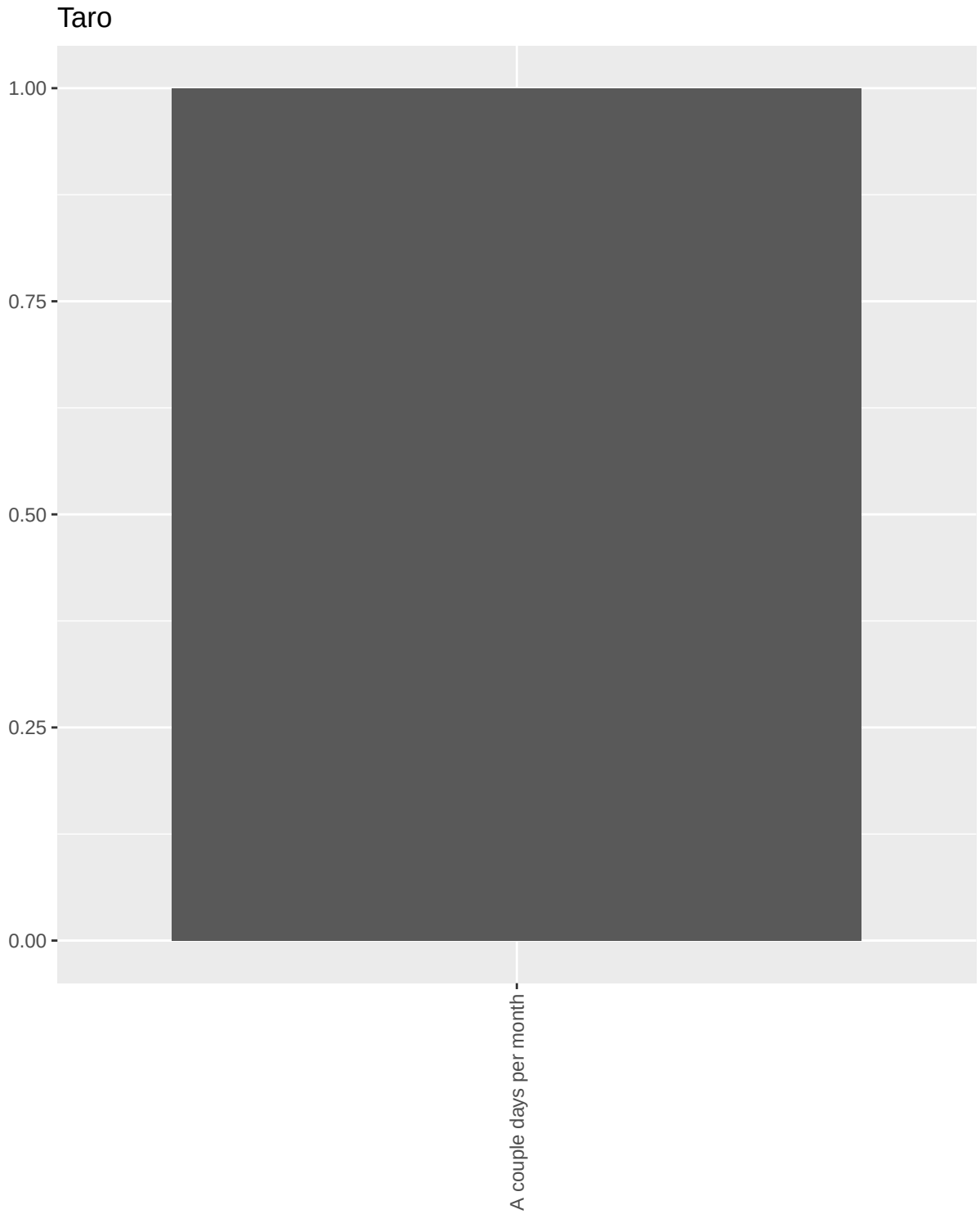

Fresh water fish, river fish (fresh or frozen) − Tilapia etc
1.00
0.75
0.50
0.25
0.00
A couple days per week

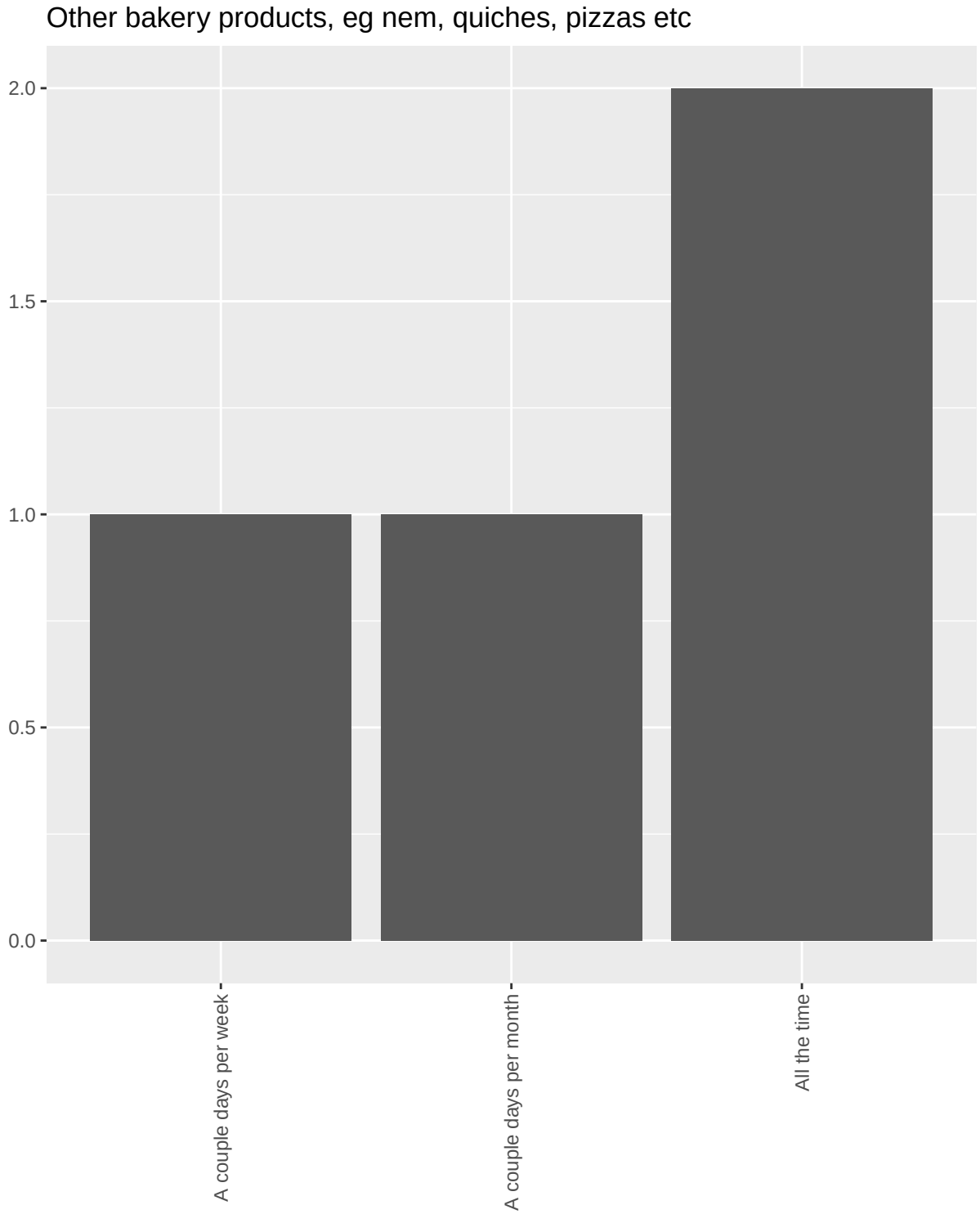

Sea snails (trochus, etc.)
1.00
0.75
0.50
0.25
0.00
All the time

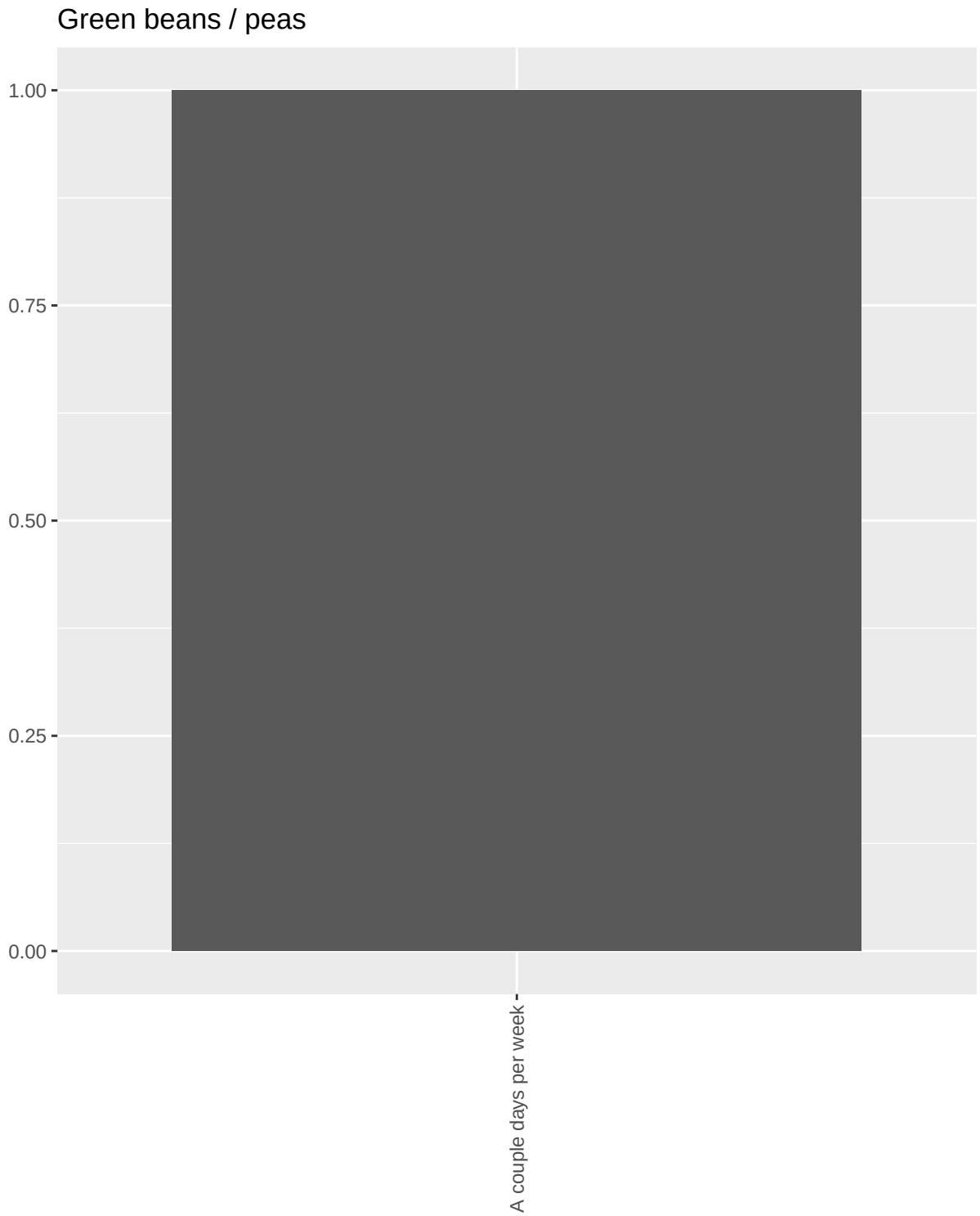

Papaya/pawpaw
1.00
0.75
0.50
0.25
0.00
A couple days per week

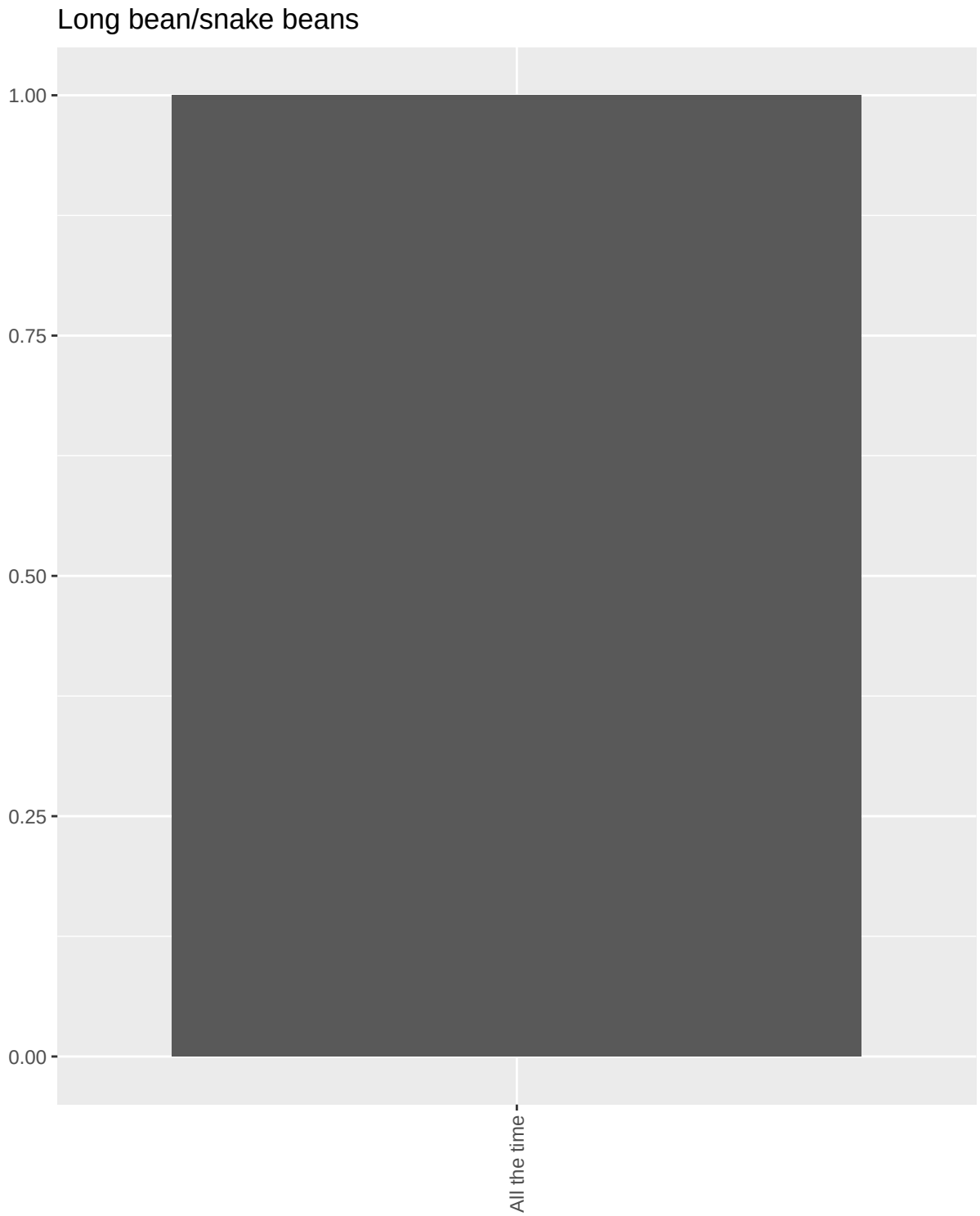

Coffee beans or grinded
3
2
1
0
A couple days per week
A couple days per month
All the time

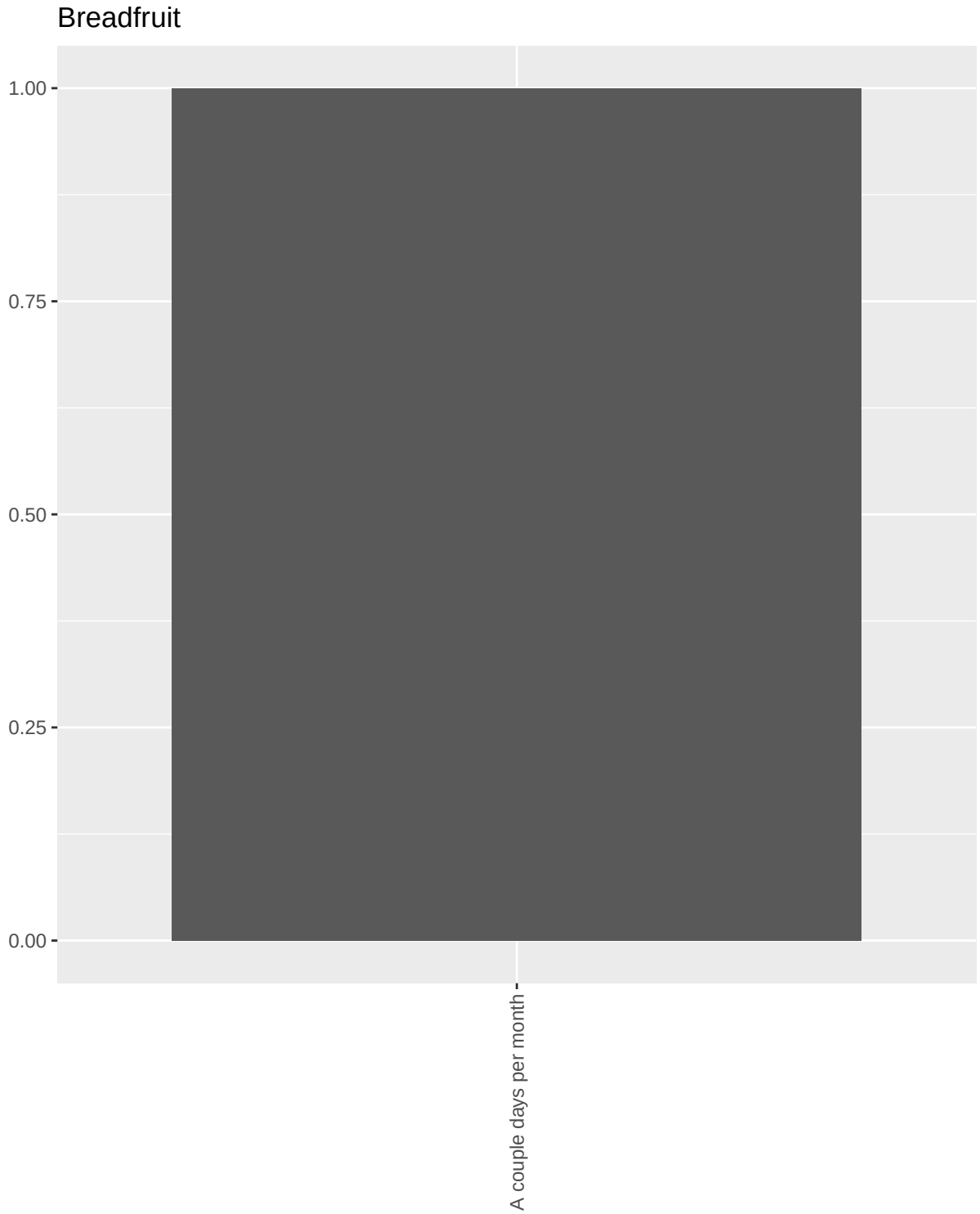

Sea worm (peanut worm)
1.00
0.75
0.50
0.25
0.00
A couple days per week

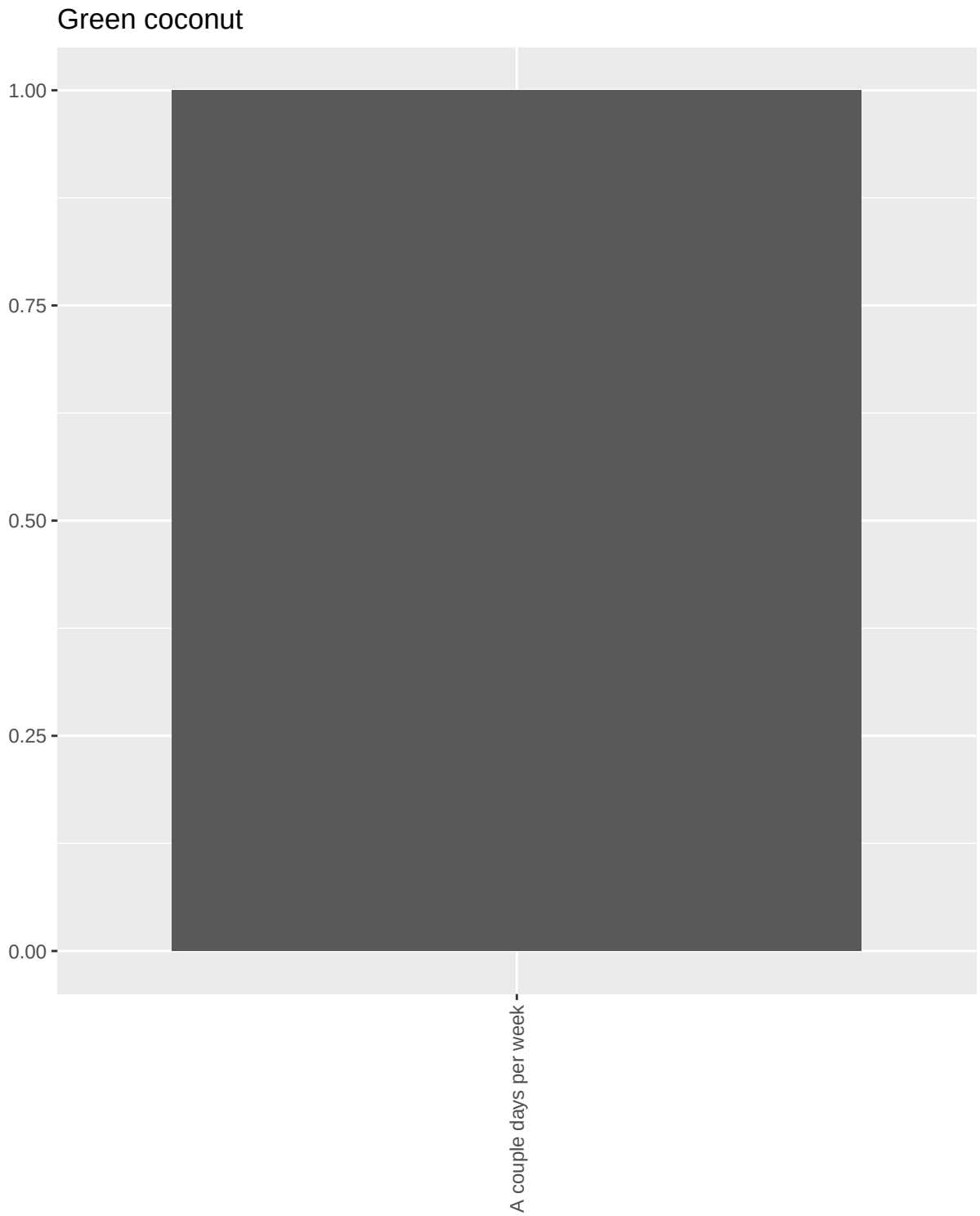

Taro
1.00
0.75
0.50
0.25
0.00
A couple days per month

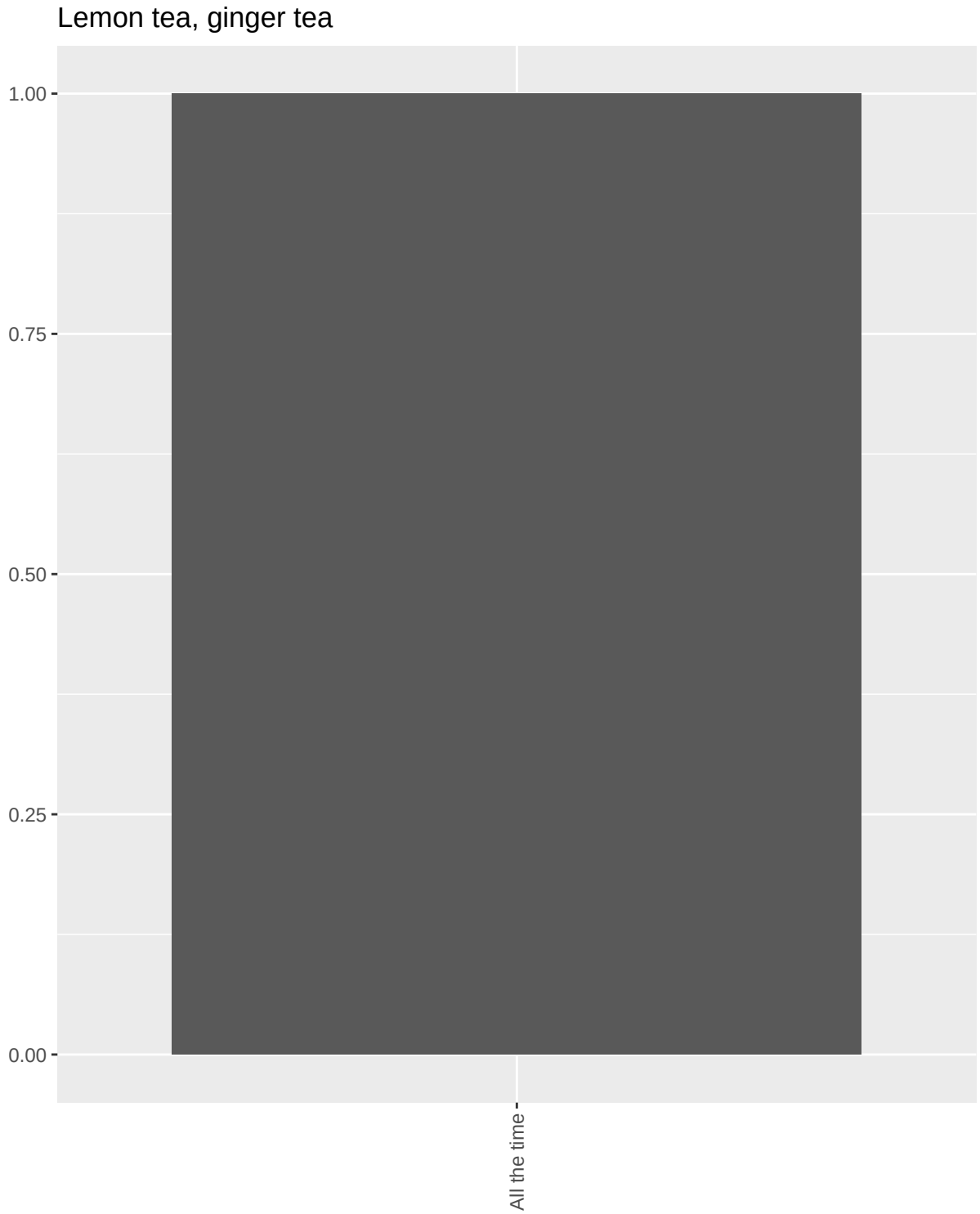

Other bakery products, eg nem, quiches, pizzas etc
2.0
1.5
1.0
0.5
0.0
A couple days per week
A couple days per month
All the time


Green beans / peas
1.00
0.75
0.50
0.25
0.00
A couple days per week


Long bean/snake beans
1.00
0.75
0.50
0.25
0.00
All the time


Breadfruit
1.00
0.75
0.50
0.25
0.00
A couple days per month


Green coconut
1.00
0.75
0.50
0.25
0.00
A couple days per week


Lemon tea, ginger tea
1.00
0.75
0.50
0.25
0.00
All the time