

Cal/Ecotox Exposure Factors for Clapper Rail (*Rallus longirostris*)*

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| Endpoint Type | Endpoint Value | Error | Range | Units | Sex | Life Stage | Location | Note | Reference |
|-------------------------------------|--|---------|-----------|-------|-----|------------|-------------------|------|-----------|
| Body Weight - Mean | 261.7 | 8.4 | | g | NR | Adult | TX | a | 1 |
| Body Weight - Mean | 279.7 | 6.9 | | g | NR | Adult | TX | b | 1 |
| Clutch or Litter Size | review | | | | | | USA | | 2 |
| Clutch or Litter Size | review | | | | | | USA | | 2 |
| Clutch or Litter Size | review | | | | | | USA | | 2 |
| Clutch or Litter Size | 6.55 | 0.19 SE | 5-8 | | F | Adult | Orange; CA | c | 3 |
| Clutch or Litter Size | 7.27 | 0.96 SD | 6-9 | | F | Adult | Alameda; CA | d | 4 |
| Clutch or Litter Size | 7.22 | | 5-9 | | NR | NR | San Francisco; CA | e | 5 |
| Dietary Composition | review | | | | | | USA | | 2 |
| Dietary Composition | review | | | | | | USA | | 2 |
| Dietary Composition | review | | | | | | USA | | 2 |
| Dietary Composition | crabs, California horn snails, isopods, crayfish, decapods, beetles | | | | NR | Adult | Orange; CA | f | 6 |
| Dietary Composition | amphipods, garden snails, crane flies, house mice, California voles | | | | NR | Adult | Orange; CA | g | 6 |
| Dietary Composition | shrimp (0.25%), water beetle (56.50%), dragonfly nymphs (0.50%), damselfly nymphs (2.00%), leech (3.75%), unident. fish (31.75%) | | | | NR | Adult | MEXICO | h | 7 |
| Dietary Composition | isopoda (48.5%), unident. parts (1.50%), corbicula (50.00%) | | | | NR | Adult | AZ | i | 7 |
| Dietary Composition | crayfish (94.67%), ground beetle (0.11%), unident. beetle (0.56%), weevils (2.78%), damselfly nymphs (0.11%), grasshoppers (0.11%), insect eggs (.11%), unident. parts (0.78%), spider (0.56%), seeds (0.11%), corbicula (0.06%), unident. mammal bone (0.06%) | | | | NR | Adult | AZ; CA | j | 7 |
| Dietary Composition | Modiolus demissus (56.5%), Lycosidae (15%), Macoma balthica (7.6%), Hemigrapsis oregonensis (3.2%), Hyanassa obsoleta (2%), Spartina leiantha (14.55%) | | | | NR | NR | Santa Clara; CA | k | 8 |
| Duration of Incubation or Gestation | 24.2 | | 22-29 | d | B | Embryo | Alameda; CA | l | 4 |
| Duration of Incubation or Gestation | | | 23-27 | d | NR | NR | San Francisco; CA | m | 5 |
| Hatching Success | 81% | | | | B | Hatchling | Orange; CA | n | 3 |
| Hatching Success | 56% | | | | B | Hatchling | Alameda; CA | o | 4 |
| Home Range | 0.81 | | 0.36-1.66 | ha | B | Adult | Orange; CA | p | 9 |
| Home Range | 15 | | | ha | NR | Adult | AZ | q | 10 |
| Home Range | 24 | | | ha | NR | Adult | AZ | r | 10 |
| Home Range | 9 | | | ha | NR | Adult | AZ | s | 10 |
| Home Range | 7 | | | ha | NR | Adult | AZ | t | 10 |
| Home Range | 8 | | | ha | NR | Adult | AZ | u | 10 |

Exposure Factors for Clapper Rail (*Rallus longirostris*)*

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| Endpoint Type | Endpoint Value | Error | Range | Units | Sex | Life Stage | Location | Note | Reference |
|------------------------|----------------|-------|-----------|------------|-----|------------|--|------|-----------|
| Longevity | 7-06 | | | yr-mo | NR | Adult | USA | v | 11 |
| Population Density | | | 0.1-1.1 | birds/ha | B | Adult | Alameda; Marin; San Mateo; Santa Clara; Sonoma; CA | w | 12 |
| Population Density | | | 0.3-1.6 | birds/ha | B | Adult | Alameda; Marin; San Mateo; Santa Clara; Sonoma; CA | x | 12 |
| Population Density | 0.89 | | | birds/ha | B | Adult | Alameda; CA | y | 4 |
| Population Density | 0.69 | | | birds/ha | B | Adult | Alameda; CA | z | 4 |
| Population Density | 1.47 | | | birds/ha | B | Adult | Alameda; CA | aa | 4 |
| Population Density | | | 0.98-1.21 | birds/acre | NR | NR | San Francisco; CA | ab | 5 |
| Survival/ Mortality | review | | | | | | USA | | 2 |
| Survival/ Mortality | review | | | | | | USA | | 2 |
| Survival/ Mortality | review | | | | | | USA | | 2 |
| Territory Size | review | | | | | | USA | | 2 |
| Territory Size | review | | | | | | USA | | 2 |
| Territory Size | review | | | | | | USA | | 2 |
| Time of Mating/ Laying | late March | | | | B | Hatchling | Alameda; CA | ac | 4 |
| Time of Nesting | April | | | | NR | NR | San Francisco; CA | ad | 5 |

Notes

- a mean body weight in fresh water acclimated birds; N=8; January-February; High Island, Chambers Co.
- b mean body weight in sea-water acclimated birds; N=16; January-February; High Island, Chambers Co.
- c mean clutch size (1 year); N=33 nests; spring; Tijuana Marsh, Upper Newport and Anaheim Bays
- d mean clutch size; N=26 nests; April-August; south San Francisco Bay
- e mean clutch size; N=27 nests; spring; Dumbarton Bridge Marsh
- f prey items in regurgitated pellets, in order of frequency of occurrence; N=18 pellets; spring; upper Newport Bay
- g unquantified dietary items identified in regurgitated pellets; N=NR; upper Newport Bay
- h dietary item occurrence by volume in stomach contents; N=4 stomachs; June; Colorado Delta
- i dietary item occurrence by volume in stomach contents; N=2 stomachs; June; Gila/Colorado River confluence
- j dietary item occurrence by volume in stomach contents; N=9 stomachs; June; Topock Marsh to Imperial Lake
- k Volumetric percentage of food items in stomach contents; N=18 stomachs; San Francisco Bay
- l mean incubation period; N=5 nests; April-August; south San Francisco Bay
- m estimated incubation period in field; N=3 nests; December; Dumbarton Bridge Marsh
- n proportion of nests in which at least one egg hatched; N=130 nests; spring; Tijuana Marsh, Upper Newport and Anaheim Bays
- o proportion of nests in which at least one egg hatched; N=50 nests; April-August; south San Francisco Bay
- p mean home range size of radiotagged and untagged birds; N=9 radiotagged birds; upper Newport Bay
- q mean home range size; N=16 birds; August-July; lower Colorado River Valley
- r mean home range size; N=6 birds; January-February; lower Colorado River Valley
- s mean home range size; N=4 birds; November-December; lower Colorado River Valley
- t mean home range size; N=18 birds; May-July; lower Colorado River Valley
- u mean home range size; N=5 birds; March-April; lower Colorado River Valley
- v from USFWS Bird Banding Laboratory data; N=758 band recoveries
- w range of mean densities; N=5 sites; nonbreeding; San Francisco Bay
- x range of mean densities; N=5 sites; breeding; San Francisco Bay
- y mean breeding density based on rope drag and call count data; N=117 ha; April-August; south San Francisco Bay - Mowry Slough
- z mean breeding density based on rope drag and call count data; N=55 ha; April-August; south San Francisco Bay - Ideal Marsh

- aa mean breeding density based on rope drag and call count data; N=68 ha; April-August; south San Francisco Bay-Dumbarton Point
- ab range of mean population densities; N=1 marsh; December; Dumbarton Bridge Marsh
- ac beginning of lay; N=NR; April-August; south San Francisco Bay
- ad beginning of nesting; N=1 marsh; December; Dumbarton Bridge Marsh

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