|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Assay | Date | Cyanobacteria concentration  (mg C L-1) | Green algae concentration  (mg C L-1) | % nutritious food | STX (ng/L) |
| 1. Life table (Constant nutritious food) | 16/05/2017 | 0.00 | 0.40 | 100.0 | --- |
| 0.50 | 0.40 | 44.4 | 1,5 |
| 1.00 | 0.40 | 28.6 | 3,0 |
| 1.50 | 0.40 | 21.1 | 4,5 |
| 2. Life table (Variable nutritious food) | 12/03/2018 | 0.00 | 1.00 | 100.0 | --- |
| 0.25 | 0.75 | 75.0 | 5,0 |
| 0.50 | 0.50 | 50.0 | 9,9 |
| 0.90 | 0.10 | 10.0 | 15,2 |
| 3. Grazing (Variable nutritious food) | 16/02/2018 | 0.00 | 1.00 | 100.0 | --- |
| 0.25 | 0.75 | 75.0 | 7,2 |
| 0.50 | 0.50 | 50.0 | 14,4 |
| 0.90 | 0.10 | 10.0 | 25,9 |
| 4. Grazing (Variable nutritious food) | 03/05/2018 | 0.00 | 1.00 | 100.0 | --- |
| 0.25 | 0.75 | 75.0 | 3,3 |
| 0.50 | 0.50 | 50.0 | 6,6 |
| 0.90 | 0.10 | 10.0 | 11,9 |

Table 1. Biomass (as mg C L-1 and %) and STX concentrations in the life table assays without nutritional restriction and with variable proportions of cyanobacteria and nutritious food, and in the grazing assay with clones of *D. laevis* and *D. gessneri*.

|  |  |  |
| --- | --- | --- |
| Species | LC50 (mg C L-1) | EC50 (mg C L-1) |
| *D. laevis* (Ibirité) | - | 1,24 (1,02 - 1,52) |
| *D. laevis* (Rio Doce) | - | 0,98 (0,82 - 1,21) |
| *D. gessneri* | 1,33 (0,75 - 1,92) | 1,68 (1,47 - 1,92) |

Table 2. LC50 and EC50 values ​​and 95% confidence intervals of *D. laevis* (IB), *D. laevis* (RD) and *D. gessneri* in the life table assay 1, with constant nutritious food. The symbols (-) indicate that it was not possible to calculate the estimates for the species.

Table 3. Results of two-way ANOVA for age at first reproduction, fecundity and total offspring in the assay 1, with constant nutritious food.

|  |  |  |  |
| --- | --- | --- | --- |
| Factor | df | F | P |
| Age at first reproduction | | | |
| Species | 6 | 35,42 | < 0,0001 |
| Treatment | 3 | 3,32 | 0,02 |
| Species x treatment | 6 | 0,74 | 0,60 |
| Fecundity | | | |
| Species | 2 | 37,04 | < 0,001 |
| Treatment | 3 | 15,30 | < 0,001 |
| Species x treatment | 6 | 1,87 | 0,09 |
| Total offspring | | | |
| Species | 2 | 67,35 | < 0,001 |
| Treatment | 3 | 15,30 | < 0,001 |
| Species x treatment | 6 | 1,87 | 0,09 |

Table 4. Estimates of the LC50 and EC50 of *D. laevis* (IB), *D. laevis* (RD) and *D. gessneri* in the life table assay 2, with variable proportions of cyanobacteria and nutritious food. The symbols (-) indicate that it was not possible to calculate the estimates for the species.

|  |  |  |
| --- | --- | --- |
| Species | LC50 (mg C L-1) | EC50 (mg C L-1) |
| *D. laevis* (Ibirité) | - | 0,81 (0,23 - 0,95) |
| *D. laevis* (Rio Doce) | - | 0,89 (0,76 - 0,97) |
| *D. gessneri* | 0,25 (0,17 - 0,34) | 0,56 (0,53 - 0,61) |

Table 5. Results of two-way ANOVA for age at first reproduction, fecundity and total offspring in assay 2, with variable proportions of cyanobacteria and nutritious food.

|  |  |  |  |
| --- | --- | --- | --- |
| Factor | df | F | P |
| Age at first reproduction | | | |
| Species | 2 | 2,24 | 0,11 |
| Treatment | 3 | 20,45 | < 0,001 |
| Species x treatment | 6 | 2,19 | 0,04 |
| Fecundity | | | |
| Species | 2 | 5,87 | 0,003 |
| Treatment | 3 | 38,33 | < 0,001 |
| Species x treatment | 6 | 7,54 | < 0,001 |
| Total offspring | | | |
| Species | 2 | 0,68 | 0,50 |
| Treatment | 3 | 36,97 | < 0,001 |
| Species x treatment | 6 | 6,05 | < 0,001 |



Figure 1. Somatic growth rate of *D. laevis* (IB), D. laevis (RD) and *D. gessneri* in assay 1, exposed to cyanobacteria and without nutritional restriction (constant concentration of green algae at 0.4 mg C L-1). Control refers to a concentration of only green algae (0.4 mg C L-1). Different letters indicate significant differences (ANOVA, Tukey test p<0.05).



Figure 2. Population parameters of *D. laevis* (RD), *D. laevis* (IB) and *D. gessneri* in the assay 1, without nutritional restriction. A) Age of first reproduction; B) Fecundity; C) Total offspring; D) Intrinsic rate of population increase (*r*). Treatments have a constant concentration of green algae (0.4 mg C L-1) and a variable concentration of cyanobacteria. Control refers to a concentration of only green algae (0.4 mg C L-1). Different letters indicate significant differences (ANOVA, Tukey's test, p<0.05).



Figure 3. Somatic growth rate of *D. laevis* (RD) and *D. laevis* (IB) in assay 2, exposed to treatments with different proportions of green algae (100-10%) and cyanobacteria (0-90%) at a total concentration of 1.0 mg C L-1. Control refers to 100% green algae. Different letters indicate significant differences (ANOVA, Tukey test p<0.05).



Figure 4. Population parameters of *D. laevis* (RD), *D. laevis* (IB) and *D. gessneri* in the assay 2, with different proportions of green algae (100-10%) and cyanobacteria (0-90%) at a total concentration of 1.0 mg C L-1. Control refers to 100% green algae. A) Age of first reproduction; B) Fecundity; C) Total offspring; D) Intrinsic rate of population increase (*r*). Different letters indicate significant differences (ANOVA, Tukey's test, p<0.05).



Figure 5. A. Total clearance rate; B. Clearance rate of *M. capricornutum* and C. Clearance rate of *R. raciborskii* of *D. laevis* (RD), *D. laevis* (IB) and *D. gessneri* exposed to treatments with varying proportions of green algae (100-10%) and cyanobacteria (0-90%) at a total concentration of 1.0 mg C L-1. Different letters indicate significant differences (ANOVA, Tukey test p<0.05).