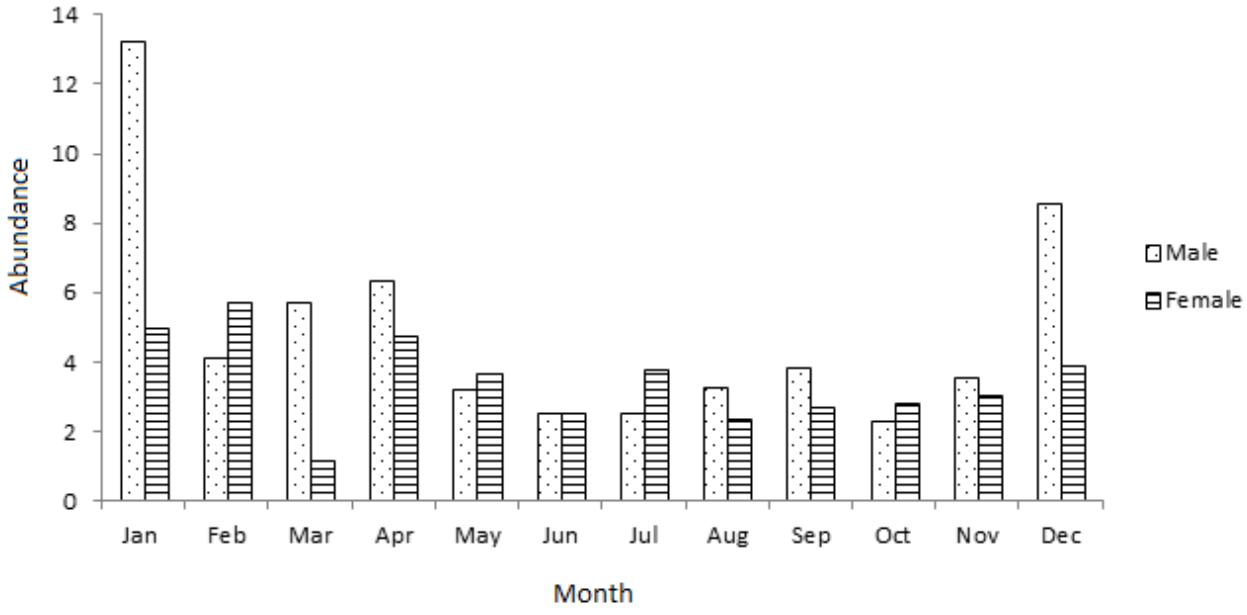


Figure 6: Abundance *B africanus* in station four

**Table 1: Abundance of *B africanus* at various stations sampled in Upper New Calabar River (2015 – 2016)**

| | 2015 | | | | 2016 | | | |
|---|---|---|---|---|---|---|---|---|
| Stations | Male | Female | Total | Sex Ratio(M:F) | Male | Female | Total | Sex Ratio |
| Station 1 | 239 (48.9%) | 249 (51.1%) | 488 | 1:0.88 | 185 (54.3%) | 155 (45.7%) | 340 | 1:0.89 |
| Station 2 | 231 (52.4%) | 209 (47.6%) | 440 | 1:0.86 | 158 (59.0%) | 110 (59.0%) | 268 | 1:0.67 |
| Station 3 | 216 (45.0%) | 264 (55.0%) | 480 | 1:1.22 | 164 (50.0%) | 164 (50.0%) | 328 | 1:1 |
| Station 4 | 286 (60.0%) | 190 (40.0%) | 476 | 1:0.67 | 164 (58.0%) | 164 (58.0%) | 283 | 1:0.73 |
| Total male | 1643 (52.95%) | | | | | | | |
| Total female | 1460 (47.05%) | | | | | | | |
| Total species | 3103 | | | | | | | |
| Overall sex ratio | 1:0.89 | | | | | | | |

**Table 2: Correalation between abundance and physiochemical parameters for *B africanus* from Upper New Calabar River (2015-2016)**

| Species | Salinity | Temperature | pH | Turbidity | Biochemical Oxygen Demand (BOD) | Dissolve Oxygen | Electrical conductivity |
|---|---|---|---|---|---|---|---|
| *B africanus* | 0.830** | 0.719** | 0.679** | -0.745** | 0.278 | -0.303 | 0.619** |

** = Highly Significant

## Disscussion

Size distribution for the species was normal, considering that various size groups were represented in the catch using the same trap at same time and place. Certain factors that are known to bring about variations in habitat selection for different age or size classes among fishes include food, predation, swimming ability and cannibalism may not have had any place in the species population (Chande and Mhitu, 2005). Sex ratio for the species showed a male dominant population for *B africanus*. Planque and Buffaz (2008) reported that sex dependent spatial distribution could be expected when a species displays sex specific life history tactics, or when sex determination is environmentally influenced (Han and Tzeng, 2007).This could be seen in forms of specific habitat selection by certain sex of the species, this differentials in habitat selection by different sex of a species could be influenced by environmental factors.

There was increased catch in the dry season over the wet season. This could be linked to the gear type used that was usually applied either at low tide or reduced flooding, indicating that they are more effective in shallow waters (Gibson *et al*., 1993).

Physiochemical parameters have had key influence on fish abundance and distribution due to the compelling impact they make on the environment thereby affecting key life factors like food, habitat and other basic requirements for survival (Pallavi and Ajay, 2013).

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