

```

--algorithm BBuf{
  variables  $in = Input, out = \langle \rangle,$ 
            $buf \in [0 \dots (N - 1) \rightarrow Msg], p = 0, c = 0;$ 

  process (  $Producer = "P"$  )
  {  $p1$ : while ( TRUE )
    { await  $p \oplus c \neq N$ ;
       $buf[p \% N] := IHead(in);$ 
       $in := ITail(in);$ 
       $p := p \oplus 1$ 
    }
  }

  fair process (  $Consumer = "C"$  )
  {  $c1$ : while ( TRUE )
    { await  $p \neq c$ ;
       $out := Append(out, buf[c \% N]);$ 
       $c := c \oplus 1$ 
    }
  }
}

```