Abstract: We study the pure braid group short exact sequence described by Fadell and Neuwirth, namely
\[ 0 \to P_{m-n}(RP^2 - \{x_1, \ldots, x_n\}) \to P_m(RP^2) \to P_n(RP^2) \to 0 \]
and the torsion of the pure Braid groups \( P_n(RP^2) \) and of the braid groups \( B_n(RP^2) \). The short exact sequence for \( n = 2 \) and \( m = 3 \) splits. This was shown by Burskirk in the 60’s. It is an open question the cases where \( m > 3 \). We show that the sequence does not splits if \( m > 3 \). For the torsion we show that there is a torsion element of \( P_n(RP^2) \) of order \( k \) if and only if \( k \) is either 2 or 4. Similar there is a torsion element of \( B_n(RP^2) \) of order \( k \) if and only if \( k \) divides either 4n or 4(n-1). Also the only element of order 2 in \( B_n(RP^2) \) is the full twist. As a consequence of our result we can show that a k-th root of the full twist exists if and only if k divides either 2n or 2(n-1). For the non-splitting result we use some approach of coincidence theory. For the study of the torsion we use techniques of fibrations more standard in the study of the braids.