

### APPENDIX 1.3.0

#### Type a2/b1,2±6±10±12±13

General outline elliptical or lanceolate with one edge acutely dentate.  
May have a platform or pedicle. Upper crown surface variably ornamented.

#### List of Tofino Basin subtypes a2/

a2/b2±6/c3/d1,2/e1/f1,2/g1/h2,3/i2,10/j3-  
5/k0/l0/m1,2,5/n2+11/p0/q0/r0/s1 *short side peaks differentiated margin*  
Doyle, Kennedy and Riedel, 1974

a2/b2+6±12/c3/d1/e1/f1,2/g1/h1,2,3/i2+11+14/j3-  
5/k0,5,10/l3/m1/n11+15/p3/q0,1/r0,1/s1 *three peaks forked median ridge*  
new subtype

a2/b±2+10/c>2/d1.0-1.5/e1/f1-3/g1/h1/i2+15/j0-3/k0/l0,3/m0,4/n1/p3  
undescribed elasmobranch dermal denticle, Form B

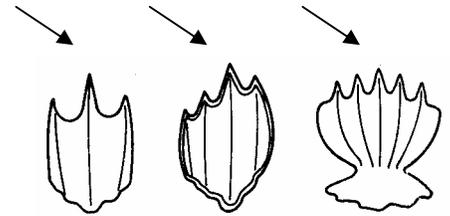
### APPENDIX 1.3.1

#### Type a2/b1,2±6±10±12±13

General outline elliptical or lanceolate with one edge acutely dentate.  
May have a platform or pedicle. Upper crown surface variably ornamented.<sup>32</sup>

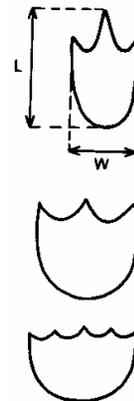
c. Number of peaks on posterior (dentate) margin (edge)<sup>2, 8, 9, 19, 31</sup>

- 0. indeterminate<sup>2, 9</sup>
- 1. one (inapplicable, see Type a3,4)<sup>2, 9, 19</sup>
- 2. two<sup>2, 9, 19</sup>
- 3. three<sup>2, 9, 19</sup>
- etc.<sup>2, 9, 19</sup>



d. Length/width ratio of crown<sup>2, 8, 9, 19</sup>

- 0. indeterminate<sup>2, 8, 9</sup>
- 1. length greater than width<sup>2, 8, 9, 19</sup>
- 2. length approximately equal to width<sup>2, 8, 9, 19</sup>



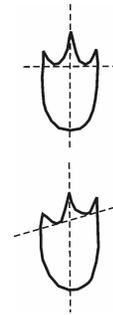
3. length less than width <sup>2, 8, 9, 19</sup>

e. Crown symmetry (skewness) <sup>2, 8, 9, 19, 31</sup>

0. indeterminate <sup>2, 8, 9</sup>

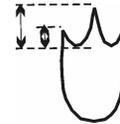
1. crown symmetrical on both sides of median plane <sup>8, 9, 31</sup>

2. crown asymmetrical <sup>8, 9, 19, 31</sup>



f. Peak size; median peak in relation to lateral peaks <sup>2, 8, 9, 19</sup>

0. indeterminate <sup>2, 8, 9, 19</sup>



1. median peak less than twice length of lateral peaks <sup>2, 8, 9, 19</sup>



2. median peak twice to three times length of lateral peaks <sup>2, 8, 9, 19</sup>

3. median peak more than three times length of lateral peaks <sup>2, 8, 9, 19</sup>



4. median peak shorter than lateral peaks <sup>19</sup>



g. Depressions between peaks <sup>2, 8, 9, 19</sup>

0. indeterminate or none of the following <sup>2, 8, 9, 19</sup>

1. U-shaped <sup>2, 8, 9, 19</sup>



2. V-shaped <sup>2, 8, 9, 19</sup>

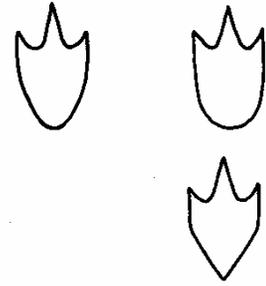


3. slit-like <sup>2, 8, 9, 19</sup>



h. Anterior crown margin opposite peaks <sup>2, 8, 9, 19, 31</sup>

0. indeterminate or none of the following <sup>2, 8, 9, 19</sup>



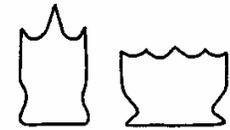
1. rounded <sup>2, 8, 9, 19</sup>

2. approximately V-shaped <sup>2, 8, 9, 19</sup>

3. irregular, uneven, or undulating (may have mesial protrusion) <sup>2, 8, 9, 19, 31</sup>



4. flared into an irregular structure <sup>2, 8, 9, 19</sup>



i. Features present on upper crown surface <sup>2, 8, 9, 19, 31</sup>

0. indeterminate, absent, or none of the following <sup>2, 8, 9, 19, 22</sup>

1. tridentate feature at crown anterior margin <sup>9, 19, 31</sup>



2. parallel or subparallel lines, ridges, or keels which do not converge <sup>2, 8, 9, 19, 31</sup>

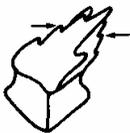


3. subparallel lines, ridges, or keels converging at anterior margin (end opposite peaks) <sup>2, 8, 9, 19, 31</sup>



4. subparallel lines, ridges, or keels converging at posterior margin with peaks <sup>2, 8, 9, 19, 31</sup>



5. narrow differentiated area along all margins <sup>2, 8, 9, 19, 31</sup> 
6. network of fine, transverse secondary lines <sup>2, 8, 9, 19,</sup> 
7. dendritic pattern of secondary lines <sup>2, 8, 9, 19</sup> 
8. scalloped pattern of secondary lines <sup>2, 8, 9, 19</sup> 
9. toothed keels <sup>19</sup> 
10. faint and often non-continuous line parallel to anterior crown margins <sup>31, 32</sup> 
11. prominent and continuous line, ridge or keel parallel to anterior crown margins <sup>31, 32</sup> 
12. lines, ridges or keels which curve over crown anterior and posterior margins <sup>31, 32</sup> 
13. median keel or platform that is more raised and broader than lateral lines, ridges, keels or platforms <sup>31, 32</sup> 
- j. Number of lines, ridges, or keels on upper crown surface (includes those forming the mesial platform) <sup>9, 19, 31</sup>
0. indeterminate or absent <sup>9, 19, 31</sup> 
- Recorded as numbers <sup>19, 31</sup>

k. Outline of pedicle base subsurface <sup>9, 19, 31</sup>

0. indeterminate or none of the following <sup>9, 19, 31</sup>



1. circular to subcircular <sup>9, 19</sup>

2. triangular with apex pointing anteriorly <sup>9, 19</sup>



3. triangular with apex pointing posteriorly <sup>9, 19</sup>



4. very elongated below crown <sup>9, 19, 31</sup>



5. square, rhombic to cruciform <sup>9, 19</sup>



6. ovoid to cruciform <sup>9, 19</sup>



7. irregular <sup>19</sup>



8. crescentic <sup>19</sup>



9. lobed <sup>19</sup>



10. tetrapetaloid <sup>31, 32</sup>



11. multi-petaloid <sup>31, 32</sup>



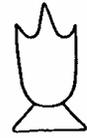
l. Size of pedicle (at anterior and sides) <sup>9, 19, 31</sup>

0. indeterminate <sup>9, 19</sup>

1. pedicle wider than crown <sup>9, 19, 31</sup>

2. pedicle same width as crown <sup>9, 19, 31</sup>

3. pedicle narrower than crown <sup>9, 19, 31</sup>



m. Features on subcrown <sup>31</sup>

0. indeterminate or none of the following <sup>31</sup>

1. absent (smooth) <sup>31, 32</sup>

2. one median line, ridge, keel, or platform <sup>31, 32</sup>

3. two lines, ridges, keels, or platforms <sup>31, 32</sup>

4. three or more short parallel to subparallel lines, ridges, or keels which commonly do not exceed one half crown length <sup>31, 32</sup>

5. three or more long parallel to subparallel lines, ridges, or keels which commonly exceed one half crown length and often extend from posterior pedicle margin to posterior crown margin or apex <sup>31, 32</sup>



6. curved line, ridge, or keel near subcrown centre posterior region around pedicle<sup>31, 32</sup>



7. curved depression surrounding junction of crown and pedicle<sup>31, 32</sup>



n. Upper crown mesial platform (or differentiated structure)<sup>31</sup>

0. indeterminate or none of the following<sup>31</sup>

1. absent or considerably reduced<sup>31, 32</sup>



2. line, ridge, or keel<sup>31, 32</sup>



3. narrow and elongate lanceolate (rounded anterior margin, pointed posterior margin), (greater than five times longer than wide)<sup>31, 32</sup>



4. elongate lanceolate (three to five times longer than wide)<sup>31, 32</sup>



5. lanceolate (greater than one to less than three times longer than wide)<sup>31, 32</sup>



6. broad lanceolate (equally as long as wide, or wider than long)<sup>31, 32</sup>



7. narrow and elongate rhomboid (greater than five times longer than wide)<sup>31, 32</sup>



8. elongate rhomboid (three to five times longer than wide)<sup>31, 32</sup>



9. rhomboid (two to three times longer than wide)<sup>31, 32</sup>



10. broad rhomboid (equally as long as wide, or wider than long)<sup>31, 32</sup>



11. long, extends anterior to posterior (greater than one half crown length)<sup>31, 32</sup>



12. short, (less than or equal to one half crown length)<sup>31, 32</sup>



13. with internal lines, ridges, or keels (which are not closely paired)<sup>31, 32</sup>



14. with closely paired lines, ridges, or keels<sup>31, 32</sup>



15. single ridge that forks near the anterior margin<sup>31, 32</sup>



p. Anterior crown overhang of pedicle/crown junction<sup>31</sup>

0. indeterminate<sup>31</sup>

1. absent (crown drops obliquely or vertically to pedicle)<sup>31, 32</sup>



2. minor (crown slightly curves under to pedicle)<sup>31, 32</sup>



3. prominent (crown significantly under to pedicle)<sup>31, 32</sup>



q. Pedicle type<sup>31</sup>

0. indeterminate or none of the following<sup>31</sup>

1. tetrahedroid<sup>31, 32</sup>

2. keeled tetrahedroid<sup>31, 32</sup>

3. expanded tetrahedroid<sup>31, 32</sup>

4. keeled expanded tetrahedroid<sup>31, 32</sup>

5. tall trunk<sup>31, 32</sup>

6. keeled tall trunk<sup>31, 32</sup>

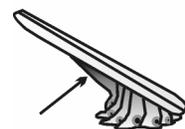
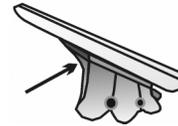
7. trunk-like<sup>31, 32</sup>

8. keeled trunk<sup>31, 32</sup>

9. short trunk<sup>31, 32</sup>

10. keeled short trunk<sup>31, 32</sup>

r. Pedicle subsurface<sup>31</sup>



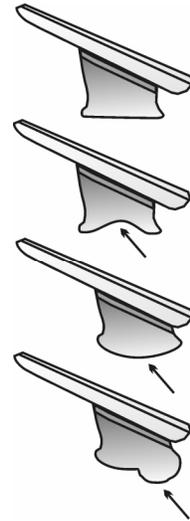
0. indeterminate or none of the following <sup>31</sup>

1. flat <sup>31, 32</sup>

2. concave <sup>31, 32</sup>

3. convex <sup>31, 32</sup>

4. convex with bulge to one side <sup>31, 32</sup>



s. Crown curvature from side edge to edge (crown viewed in cross-section from side-to-side) <sup>31</sup>

0. indeterminate or none of the following <sup>31</sup>

1. approximately flat (may be equally undulating) <sup>31, 32</sup>

2. convex (may be undulating, but mesially highest) <sup>31, 32</sup>

3. concave (may be undulating, but mesially lowest) <sup>31, 32</sup>

