Appendix A: XML Schema Document for The Bee Corp's Method of Hive Strength Assessment for Pollination Effectiveness (Symes and Cazier, 2021)

Ellie Symes, Joseph Cazier

Published on: Apr 26, 2021

License: [Creative Commons Attribution 4.0 International License \(CC-BY 4.0\)](https://creativecommons.org/licenses/by/4.0/)

Appendix A - XML Schema Document

The Bee Corp's Method of Hive Strength Assessment for Pollination Effectiveness (Symes and Cazier, 2021)

```
<?xml version = "1.0" encoding = "UTF-8"?>

<!-- This header information defines the xml version used and the unicode character
format -->

<xs:schema xmlns:xs = "http://www.w3.org/2001/XMLSchema"
targetNamespace = "http://beexml.appstate.edu/xml/Pollination_and_Bee_Flora"
xmlns = "http://beexml.appstate.edu/Pollination_and_Bee_Flora">

<!-- This links to the W3 consortium schema website that hosts information useful for
data validation and formats. Next it sets up a namespace to avoid confusion among
similar tags used for other bee data by linking it to one of seven Apimondia Scientific
Commissions -->

<!-- Define elements here -->

<!-- Root Element -->

<xs:element name = "BC_Hive_Strength" type = "xs:string"/>

<xs:attribute name = "ID" type = "xs:string"/>

<!-- Raw Data Elements -->

<xs:element name = "BCHS_Raw_Data" type = "xs:string"/>

<xs:element name = "BCHS_Frame_Count" type = "xs:integer"/>

<xs:attribute = "Hive_Type" type = "xs:string"/>

<!-- Note that for now we are listing Hive_Type as a string. Strongly suggest that as
soon as one of our teams works to standardize names for common hive types that this
attribute is updated to match -->
```

```

<xs:element name = "BCHS_Location" type = "xs:string"/>

<!-- The code below sets up the two ways to record GIS data, it is restricted to these
two enumerated values for quality control -->

<xs:attribute name = "Degree_Type" use = "required">

  <xs:complexType>

    <xs:restriction base = "xs:string">

      <xs:enumeration value = "DMS"/>

      <xs:enumeration value = "DMM"/>

    </xs:restriction>

  </xs:complexType>

</xs:attribute>

<xs:element name = "BCHS_TagID" type = "xs:string"/>

<xs:element name = "BCHS_Hives_Rented" type = "xs:integer"/>

<xs:element name = "BCHS_Hives_Graded" type = "xs:integer"/>

<xs:element name = "BCHS_Time" type = "xs:dateTime"/>

<xs:attribute name = "GMT" type = "xs:integer"/>

<!-- Note that we could have included the UTC or GMT indicator in the time value
itself with a timecode. However, since we are dealing with nature both absolute time
and relative time matter and will likely be used for different types of analysis,
therefore an attribute seemed to make more sense so the data can more easily be
stored separately and merged when needed. -->

<!-- Computed Data Elements →

<xs:element name = "BCHS_Computed"/>

<xs:attribute name = "Grouping" type = "xs:string"/>

<xs:element name = "BCHS_Avg_Fr_Str" type = "xs:decimal"/>

```

```
<xs:element name = "BCHS_Avg_Sea_Str" type = "xs:decimal"/>
<xs:element name = "BCHS_HS_Dist" type = "xs:string"/>
<xs:element name = "BCHS_Min_Max" type = "xs:string"/>
<xs:element name = "BCHS_Pct_Grade" type = "xs:decimal"/>
</xs:schema>
```

[Symes and Cazier.Appendix A. Hive Strength.pdf](#)

80 KB