



Apimondia

International Federation of Beekeepers' Associations

Apimondia Working Group number	AWG 15
Name	Standardization of data on bees and beekeeping
Subject	<p>Governmental institutions, academic research projects as well as breeding programs of beekeeping associations inevitably gather data about bees and beekeepers.</p> <p>Data domains include:</p> <ul style="list-style-type: none"> • colonies / beekeepers / operations / hive tracking and hive monitoring systems • biodiversity of bees and breeding • bee diseases / pathogens / strains / treatments • environmental data (climate, flora) • contaminants and residues in bee products • modelling data as well as calibration data (MUST-B) • data on authenticity of bee products (NMR method etc.) • market data for bee products (prices, trade flows) <p>Unfortunately, these datasets and databases become data islands and the information is of limited value for the beekeeping community as a whole.</p> <p>The task of this working group is to facilitate the standardization necessary to easily interpret and exchange the data. In other words to enable data sharing.</p>
Date of creation	October 3, 2017
Place of creation	Istanbul Turkey
Scientific Commission(s) involved	Beekeeping Technology and Quality
Continental Commission(s) involved	All
Coordinator(s)	<p>Joseph Cazier, Ph.D as Chair Executive Director of the Center for Analytics Research and Education Appalachian State University cazierja@appstate.edu</p> <p>Marten Schoonman as Vice Chair Cofounder BEEP Foundation and beekeeper Work package leader B-Good project Biodiversity & Society at Naturalis Biodiversity Center marten@beep.nl</p> <p>Max Rünzel as Secretary Evaluation Consultant CGIAR Advisory Services maxruenzel@me.com</p>

Collaborators	<table border="0" style="width: 100%;"> <tr> <td style="width: 33%;">Jan Bischoff</td> <td style="width: 33%;">Walter Haefeker</td> <td style="width: 33%;">Michael Rubinigg</td> </tr> <tr> <td>Rafael Braga</td> <td>Awad Hassan</td> <td>Max Rünzel</td> </tr> <tr> <td>Robert Brodschneider</td> <td>Edgar Hassler</td> <td>Andres Salazar</td> </tr> <tr> <td>Jutta Buschbom</td> <td>Peter He</td> <td>Stefanie Schädlich</td> </tr> <tr> <td>Alexandra Casapu</td> <td>Konstanza Jochim</td> <td>Marten Schoonman</td> </tr> <tr> <td>Joseph Cazier</td> <td>Jānis Kronbergs</td> <td>Noa Simon Delso</td> </tr> <tr> <td>Sascha Fiedler</td> <td>Frank Linton</td> <td>Magdalena Sperl</td> </tr> <tr> <td>Giovanni Formato</td> <td>Rob Long</td> <td>Gregor Susang</td> </tr> <tr> <td>Agnes Gambill</td> <td>George Luft</td> <td>Bogdan Szabo</td> </tr> <tr> <td>Alexis Gkantiragas</td> <td>William Meikle</td> <td>Werner Toplak</td> </tr> <tr> <td>Alexis Gkantiragas</td> <td>Marco Pietropaoli</td> <td>Giuseppe Triachini</td> </tr> <tr> <td>Gerard Glowacki</td> <td>Katrim Proschek</td> <td>Pavol Ulbrich</td> </tr> <tr> <td>Kristina Gratzner</td> <td>Dick Rogers</td> <td>James Wilkes</td> </tr> </table> <p>Due to the nature of this working group, new collaborators are welcome to contribute towards the goals of this AWG.</p>	Jan Bischoff	Walter Haefeker	Michael Rubinigg	Rafael Braga	Awad Hassan	Max Rünzel	Robert Brodschneider	Edgar Hassler	Andres Salazar	Jutta Buschbom	Peter He	Stefanie Schädlich	Alexandra Casapu	Konstanza Jochim	Marten Schoonman	Joseph Cazier	Jānis Kronbergs	Noa Simon Delso	Sascha Fiedler	Frank Linton	Magdalena Sperl	Giovanni Formato	Rob Long	Gregor Susang	Agnes Gambill	George Luft	Bogdan Szabo	Alexis Gkantiragas	William Meikle	Werner Toplak	Alexis Gkantiragas	Marco Pietropaoli	Giuseppe Triachini	Gerard Glowacki	Katrim Proschek	Pavol Ulbrich	Kristina Gratzner	Dick Rogers	James Wilkes
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Document(s) to provide	<ul style="list-style-type: none"> • Define and implement a common technical standard for data sharing • Make best practice recommendation in collecting, storing or securing data to facilitate sharing • Publish ways to harmonize similar data to facilitate data sharing and aggregation 																																							
Action(s) to do	<ul style="list-style-type: none"> • Develop and guide the process of defining and maintaining an international bee data standard • Publicize and maintain the standard • Realize use of the standard e.g. via sharing examples, explaining its value, providing support • Make recommendations and support actions to facilitate bee data sharing 																																							
Digital Kit to provide	Section of Apimondia web site on standardization																																							
Dead line	Ongoing as new types of data are continually discovered																																							
Target(s)	<ul style="list-style-type: none"> • Scientists collecting, processing and exchanging data in the domains stated above • Developers and users of bee related surveys, information systems, hive tracking and monitoring systems and data processing • Government regulators • Beekeepers understanding the need to and are willing to share data 																																							
Recommendation(s)	Create an open journal for bee data standardization to document and share the proposals for and the standard and related information while ensuring quality and broad collaboration																																							
Observation	<p>Urgent need for standardization is recognized by the beekeeping sector. See links below for more information.</p> <ul style="list-style-type: none"> • https://www.beeculture.com/the-promise-of-standardized-data/ • https://www.beeculture.com/bxml-part-1-the-power-of-big-data-analytics/ • https://www.beeculture.com/bxml-part-2-achieving-the-goal-of-standardized-data/ 																																							