

BrapiCoordinatorSelby add documentation around search calls

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5 contributors 

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Phenotype Search [/brapi/v1/phenotypes-search]

Scope: PHENOTYPING. Status: ACCEPTED.

Returns a list of observationUnit with the observed Phenotypes.

See [Search Services](#) for additional implementation details.

Implemented for GnpIS and PHIS data (<https://urgi.versailles.inra.fr/ws/webresources/brapi/v1/phenotypes>). Use case: this section allows to get a dataset from multiple studies. It allows to integrate data from several databases. Refactor note : This call allows to get and integrate portions of multiple phenotyping data matrixes. A proposed evolution allowed to get a list of single observations, this functionality is still possible with this call by specifying the observation variable, see below.

Example Use cases:

- Study a panel of germplasm accross multiple studies, search parameters : {"germplasmDbIds" : ["Syrah", "34Mtp362"]}
- Get all data for a specific study : {"studyDbIds" : ["383"]}
- Get simple atomic phenotyping values : {"germplasmDbIds" : ["Syrah", "34Mtp362"], "observationVariableDbIds" : ["CO_345:0000043"]}
- Study Locations for adaptation to climat change : {"locationDbIds" : ["383838", "MONTPELLIER"], "germplasmDbIds" : ["all ids for a given species"]}
- Find phenotypes that are from after a certain timestamp

Response data types

Variable	Datatype	Description	Required
observationUnitDbId	String	internal DB id, can be a primary key, a URI or any other ID, must be unique within the calls	Y
studyDbId	String	internal DB id , can be a primary key, a URI or any other ID	Y
studyName	string		
studyLocationDbId	string	internal DB id , can be a primary key, a URI or any other ID	Y
studyLocation	string	Location name	
observationLevel	string	level of this observation unit. Its ID is the observationUnitDbId	
observationLevels	string	Concatenation of the levels of this observationUnit. Used to handle non canonical level structures. Format levelType:levelID,levelType:levelID	
plotNumber	string	Plot level ID. Null if not relevant because the observation unit is a higher level	
plantNumber	string	Plant Level ID	
blockNumber	string	Block Level ID	
replicate	string	replicate level ID	

Variable	Datatype	Description	Required
programName	string		
germplasmDbId	Long	internal DB id , can be a primary key, a URI or any other ID	Y
germplasmName	string	Display name for the germplasm. MCPD Name field	
X,Y	string	Relative position in the study. Can be row/colmun number, line/rootstock, meters, etc...	
treatments	array of objects	list of all the factors applied to the observation unit : fertilizer, inoculation, irrigation, etc...	
treatments.factor	string	the type of treatment/factor. EG: fertilizer, inoculation, irrigation, etc...	
treatments.modality	string	the treatment/factor description. EG: low fertilizer, yellow rust inoculation, high water, etc...	
observationUnitXref	array of objects	Xref, IDs of this observation Unit in this database or other database. Handle different IDs of your individuals/plant material/seed Lot	
observationUnitXref.source	string	the source/name space of the ID, for known databases use : biosampleEBI, biosampleNCBI	Y
observationUnitXref.id	string	ID	Y
observations	array of objects	At least one observation. See below for details on the content.	Y
observations.observationDbId	string	ID or PUI (DOI, URI, LSID)	
observations.observationVariableDbId	string	ID or PUI (DOI, URI, LSID)	Y
observations.observationVariableName	string	Display name	
observations.season	string	this can be considered as a label to group data within a multiyear study. It can be a year, season, Phenotyping campain, a period accross multiple years or a list of some years	
observations.value	string		
observations.observationTimeStamp	string	ISO format "2006-07-03T10:00:38-0800"	
observations.collector	string	Person or team who has made the observation	

Phenotype Search [POST /brapi/v1/phenotypes-search]

observationTimeStamp : Iso Standard 8601. observationValue data type inferred from the ontology

- Request (application/json)

```
{
  "germplasmDbIds" : [ "Blabla", "34Mtp362" ], // (optional) The name or synonym of external
genebank accession identifiers
  "observationVariableDbIds" : [ "37373", "CO_321:00000234"], // (optional) The IDs of traits,
could be ontology ID, database ID or PUI
  "studyDbIds" : [ "383", "2929", "WHEAT_NETWK_2016-MONTPPELLIER" ], // (optional) The database ID
/ PK of the studies search parameter
  "locationDbIds" : [ "383838", "MONTPPELLIER" ], // (optional) locations these traits were
collected
  "programDbIds" : [ "3838", "Drought_resistance_CG_2020" ], // (optional) list of programs that
have phenotyped this trait
  "seasonDbIds" : [ "338", "2010", "1956-2014", "2002-2003-2004", "2007 Spring" ], // (optional)
The year or Phenotyping campaign of a multiannual study (trees, grape, ...)
  "observationLevel" : "plot", // (optional) The type of the observationUnit. Returns only the
observaton unit of the specified type; the parent levels ID can be accessed through
observationUnitStructure.
}
```

```

        "observationTimeStampRange" : ["2015-06-16T00:53:26-0800","2015-06-18T00:53:26-0800"] //
(optional) Array fixed length of 2. First item is the Start Timestamp, second item is the End
Timestamp.
        "pageSize" : 100, // (optional) The size of the pages to be returned. Default is `1000`.
        "page" : 1, // (optional) Which result page is requested
    }
}

```

- Response 200 (application/json)

```

{
  "metadata": {
    "pagination": {
      "pageSize": 100,
      "currentPage": 1,
      "totalCount": 102,
      "totalPages": 2
    },
    "status": [],
    "datafiles": []
  },
  "result": {
    "data": [
      {
        "observationUnitDbId": "2016-Maugio-34-575-abc-123",
        "observationLevel": "plot",
        "observationLevels": "bloc:2,subBloc:1,plot:2016-Maugio-34-575-abc-123",
        "plotNumber": "2016-Maugio-34-575-abc-123",
        "plantNumber" : null,
        "blockNumber" : "2",
        "replicate": null,
        "observationUnitName": "2016-Maugio-34-575",
        "germplasmDbId": "doi:10.155454/12349537E12",
        "germplasmName": "IR-8",
        "studyDbId": "YieldStudy2015-5",
        "studyName": "Yield wheat 2015",
        "studyLocationDbId": "mtp-north-32",
        "studyLocation": "Montpellier",
        "programName": "Whealbi",
        "X": "5",
        "Y": "15",
        "entryType": null,
        "entryNumber": null,
        "treatments": [
          {
            "factor": "water regimen",
            "modality": "water deficit"
          }
        ],
        "observationUnitXref": [
          {"source": "biosampleEBI", "id": "SAMEA179865230"},
          {"source": "gnpis.lot", "id": "INRA:CoeSt6 _SMH03"},
          {"source": "kernelDB", "id": "239865"}
        ],
        "observations": [
          {
            "observationDbId": "153453453",
            "observationVariableDbId": "CO_321:0000045",
            "observationVariableName": "Plant_height",
            "observationTimeStamp": "2015-06-16T00:53:26-0800",
            "season": "2015",
            "collector": "Mr. Technician",
            "value": "45"
          },
          {
            "observationDbId": "23453454345",
            "observationVariableDbId": "CO_321:0000996",
            "observationVariableName": "GW100_g",
            "observationTimeStamp": "2015-06-16T00:53:26-0800",
            "season": "2015",
            "collector": "Mr. Technician",
            "value": "3"
          }
        ]
      }
    ],
    {
      "observationUnitDbId": "45204",

```

```
"observationLevel": "plant",
"observationLevels": null,
"plotNumber": null,
"plantNumber" : "45204",
"blockNumber" : null,
"replicate": "2",
"observationUnitName": "2010-Cornell-37-99",
"germplasmDbId": "doi:10.155499/12349537E00",
"germplasmName": "ZE-45",
"studyDbId": "YieldStudy2010-5",
"studyName": "Yield wheat 2010",
"studyLocationDbId": "88484",
"studyLocation": "Cornell",
"programName": "wheat for futur",
"X": null,
"Y": null,
"entryType": null,
"entryNumber": null,
"treatments": [],
"observations": [
  {
    "observationDbId": "153453453",
    "observationVariableDbId": "CO_321:0000045",
    "observationVariableName": "Plant_height",
    "observationTimeStamp": "2010-06-16T00:53:26-0800",
    "season": "2010",
    "collector": "Mr. Technician",
    "value": "45"
  },
  {
    "observationDbId": "23453454345",
    "observationVariableDbId": "CO_321:0000996",
    "observationVariableName": "GW100_g",
    "observationTimeStamp": "2010-06-16T00:53:26-0800",
    "season": "2010",
    "collector": "Mr. Technician",
    "value": "3"
  }
]
}
}
```